FIGURES

Of the most BEAUTIFUL, USEFUL, and UNCOMMON

PLANTS

DESCRIBED IN THE

GARDENERS DICTIONARY,

EXHIBITED ON

Three Hundred COPPER PLATES,

Accurately ENGRAVEN after DRAWINGS taken from NATURE

WITH

The CHARACTERS of their FLOWERS and SEED-VESSELS,
Drawn when they were in their greatest Perfection.

To which are added,

Their DESCRIPTIONS, and an ACCOUNT of the CLASSES to which they belong,
according to *Ray*'s, *Tournefort*'s, and *Linnæus*'s Method of Classing them.

By *PHILIP MILLER*, F. R. S.
MEMBER of the BOTANIC ACADEMY at FLORENCE, and GARDENER to the Worshipful
Company of APOTHECARIES at their Botanic Garden at *Chelsea*.

In TWO VOLUMES.

VOL. I.

LONDON:
Printed for the AUTHOR;
And Sold by JOHN and FRANCIS RIVINGTON in *St. Paul's Church-Yard*,
J. WHISTON, J. HINTON, T. LONGMAN, B. WHITE, W. JOHNSTON,
T. CASLON, and J. DODSLEY

M.DCC.LXXI.



TO HIS EXCELLENCY

JOHN Duke of BEDFORD,

Marquis of TAVISTOCK,

Earl of BEDFORD,

Baron RUSSEL, and Baron RUSSEL of *Thornhaugh*,

And Baron HOWLAND of *Stretham*,

Lord Lieutenant and Cuſtos Rotulorum of the County of BEDFORD;

As alſo of DEVONSHIRE, and of the City and County of EXETER,

Lord Lieutenant General and General Governor of the Kingdom of IRELAND,

And Knight of the Moſt Noble Order of the GARTER;

THIS WORK is, with the greateſt Reſpect, Inſcribed,

BY

His EXCELLENCY'S

Moſt Obedient Humble Servant,

Philip Miller.





THE

PREFACE

THE Plan of this Work, which was first offered to the Public for its kind Encouragement, was very extensive: It was therein proposed to exhibit the Figures of One or more Species of all the known Genera of Plants. But, after a few Numbers were published, the Author was favoured with several Letters, in which the Writers represented, that the Engraving of the Figures of such Plants as are neither ornamental or useful, would swell the Work too much, and enhance its Price, so as to make it too great for the Generality of Purchasers. Several Intimations were also sent him, that many Persons, who were inclined to encourage so useful a Work, forbore their benevolent Intentions, till it drew near to its Conclusion. The Author, therefore, almost from the Beginning, found it necessary to contract his Plan, and confine it to those Plants only, which are either curious in themselves, or may be useful in Trades, Medicine, &c. including the Figures of such new Plants as have not been noticed by any former Botanists. By this Plan all those Genera of Plants, which do not include any Species having one or other of these Properties, are omitted; so that the Number of Plates now included in this Work, are not near so many as was at first intended.

In the Execution of the Work no Expence has been spared to render it as perfect as possible: The Drawings were taken from the living Plants; the Engravings were most of them done under the Author's Inspection; and the Plates have been carefully coloured from the original Drawings, and compared with the Plants in their Perfection, wherever it could be done, as well with regard to the Leaves as Flowers, that so Gentlemen who are least conversant with the Plants described, should not be drawn into any Mistake relating to them; and the less, as he has taken their Descriptions from the living Plants.

To these Figures are added the Characters of the Genus, under which each Plant is ranged, and an Account of the Classes to which they belong, according to

Ray's,

Ray's, *Tournefort*'s, and *Linnæus*'s Methods of claſſing them; and alſo the ſeveral Titles which the different Writers on Botany have given to them, with References to the ſeveral Books wherein they are mentioned.

The *Engliſh* Names (of thoſe Plants which have any) are ſubjoined to the *Latin* Titles for the Benefit of ſuch as are unacquainted with *Latin*, and to theſe are added the *French* Names from *Tournefort*'s Inſtitutions of Botany: And Mention is alſo made of the Countries from whence the Plants have been brought to *England*, which will be of ſome Uſe to thoſe who are inclinable to cultivate them. And where any of the Plants here figured are of Uſe in Medicine, or for other Purpoſes of Life, the Uſes are here inſerted, with the Times of their Flowering, and perfecting their Seeds: So that, although this Work was intended for an Appendix to the Gardeners Dictionary, yet it may be reckoned a complete Performance of itſelf, independent of that.

As ſeveral new Plants have been introduced into the *Engliſh* Gardens ſince the preſent Work was begun, the Author, being deſirous of exhibiting their Figures and Deſcriptions, was obliged to break through the alphabetical Order which he firſt purſued; but, as he has added a complete alphabetical Index to the Plants contained in the Work, he preſumes, that the turning to the Index for any Plant which the Reader may want to ſee, will not be found troubleſome; and therefore believes, he need make no other Apology for this, than what has been already done in the Body of the Work.

The Author takes this Opportunity to return his Thanks to all thoſe Gentlemen who have been ſo kind as to encourage this Work; and hopes, if they ſhould meet with any Imperfections in the Performance, they will excuſe them, in one who has uſed his utmoſt Care and Diligence to avoid any ſuch in every Part of it.

A DESCRIPTION OF THE FIGURES of PLANTS, Adapted to the GARDENERS DICTIONARY.

PLATE I.

ABIES, *Tourn. Inst. R. H.* 585. *Lin. Gen. Plant.* 880. *Pinus, Lin. Sp. Plant.* 1001.

The FIR *or* SPRUCE-TREE.

THE distinguishing Characters of this Genus, from that of *Pinus*, is in the Leaves of the *Fir-Tree* being produced single on the Branches; whereas those of the *Pine* are Two, Three, or Five, produced from One Center, and covered at their Base with the same *Theca* or Sheath. This is the only Distinction which has been made by the Writers on Botany, between the Two Genera. To which we may add, the Cones of the *Fir-Tree* are composed of flat Scales, which cover the Cells in which the Seeds are inclosed, lying imbricatim, like the Tiles on an House; whereas the Cones of the *Pines* have Protuberances over the Cells, which, in many of the Species, are very much pointed. Fig. *a* represents the Male Flower, or *Katkin*; *b* the Cones, which are produced at remote Distances from the *Katkins*, on the same Branches; *c* is a Seed, with its Wing adhering to it.

Doctor *Linnæus*, the celebrated Professor of Botany at *Upsal* in *Sweden*, has joined the *Abies*, *Pinus*, and *Larix*, together in the same Genus; to which, in his First and Second Edition of his *Genera Plantarum*, he gave the Title *Abies*: But, in his Enumeration of the Species of Plants, as also in his last Edition of his *Genera Plantarum*, he has changed the Title to *Pinus*, and makes the Distinction of the Three Genera only a specific; so renders them different Species of the same Genus. But as these have, by all the Writers on Botany, been separated under different Genera, and as the Growth and Habit of the Plants are so remarkably different, as to be distinguished by Persons not skilled in Botany, at the First Sight, so it will be better to continue each Genus separate, than to join them under the same Appellation, especially as they are so many different Species of each Genus, already known, which, by being included under the same Title, cannot be so clearly distinguished as they may be under their several Genera. To which may be added, the *Firs* having close matted Roots, so that they will bear transplanting at a greater Age than the *Pines*, whose Roots generally extend in Length; therefore can rarely be taken up with Balls of Earth adhering to them, which renders it very hazardous to transplant these Trees, when grown to any considerable Size. These Differences being added, I must think it better to abide by the former Distinctions, than to follow the new Method of ranging them, as it will be better understood by such as are not Adepts in the Science of Botany.

The Species here delineated is,

ABIES *Piceæ foliis brevioribus, Conis biuncialibus laxis*, i.e. *Fir-Tree*, with short Pitch-Tree Leaves, and loose Cones, Two Inches long, commonly called *White Newfoundland Spruce Fir*. This is the Sixth Sort mentioned in the *Gardeners Dictionary*. There is another Species of this Tree, which is a Native of the same Country, which is commonly stiled *Black Newfoundland Spruce*; this hath shorter Leaves, which are whiter on their under Sides, and the Cones are smaller, and more compact, than those of the White. There is also another Distinction made by the Inhabitants of *Newfoundland* among these *Firs*, which they call the *Red Spruce*; but I can find no Difference between this and the *Black*, either in the Cones which have been brought to *England*, or the young Plants which have been raised in the Gardens; therefore I do imagine they are the same Species.

The Appellation of White and Black, which have been given to these Trees, by the Inhabitants of *North America*, I suppose, is from the Colour of their Barks; for there is little Difference in the Colour of their Wood; and the Leaves of the Black Sort are whiter on their under Side than those of the White.

Both these Sorts are Natives of *North America*; the White always is found growing naturally upon the Mountains, and the Black upon the low Grounds, generally in Bogs or Swamps. The First is by much the largest Tree. There are few of these Trees now remaining near the *English* Settlements in *North America*; but farther up in the Countries, and in *Canada*, they are in great Plenty.

The Cones of these Trees were sent from *Virginia* to *England* by Mr. *Banister*, towards the End of the last Century; and several of the Plants were raised in the Gardens of the *Bishop of London* at *Fulham*, in those of Mr. *Reynardson* at *Hillendon*, near *Uxbridge*, and at Mr. *Darby*'s Garden at *Hoxton*: But these were soon destroyed, after the Death of their Possessors. About the same Time there were Cones of both these Sorts brought from *Newfoundland* to *Devonshire*, where there are now some large Trees growing, which have produced Cones, for Thirty Years past; but, except these, I believe there are few, if any, of these Trees now in *England*, which are of above Twenty Years Growth. The finest which

are in these Parts are in the curious Gardens of his *Grace the late Duke of Argyle*, at *Whitton* in *Middlesex*.

From both these Sorts of *Fir* there exsudes a fine clear Resin, of a strong Scent, which is much used by the native *Indians* to cure Wounds; and they frequently make use of it for internal Disorders; and, of late Years, the *English* Physicians in *North America* have adopted it into their Practice. This Resin has been brought to *England*, but has not been used in Medicine, unless it has been substituted for some other Sort. The Branches of both Sorts are indifferently used by the Inhabitants of *America*, in making *Spruce Beer*, from whence they had the Title of *Spruce-trees*.

There are but Two Sorts of *Firs* which have been long known in *England*; these are the *Spruce* and *Silver Firs*: The First is so called, from its Branches having been used in the making of *Spruce Beer*, in several Parts of *Europe*; the other is so called, from the Silver Colour of the under Side of its Leaves. The First of these has been reported to grow naturally on the Highlands of *Scotland*; but, I believe, this is a Mistake; there being none of them now growing there, as I have been credibly informed: But, upon the *Alps*, *Pyrenees*, in *Norway*, *Denmark*, and *Sweden*, they abound; always growing upon the Hills and mountainous Parts of those Countries. The Wood of this Sort is the *White Deal*, which is annually brought to *England* in Plenty. From the Resin of this Tree is made *Pitch*; from whence it hath been by many Authors titled *Pitch-tree*. The young Branches of this Tree are frequently used in *Diet-drinks* for the *Scurvy*.

This Sort is easily known from all the other Species of the Genus, by its narrow Leaves, which are placed on every Side the Branches, and the long pendulous Cones, which do not fall to pieces on the Tree, but fall off intire the following Summer; but their Scales open, and emit their Seeds, on the first Warmth of the Spring.

There has been a Variety of this Tree cultivated in the Gardens near *London*, which is called the *long-coned Cornish Fir*: The Leaves of this are longer, broader, and of a lighter Colour, and the Branches are better garnished with them than most of the same Sort, and the Cones are longer; so that, from the Appearance of the old Trees, any Person may be so deceived as to suppose them distinct Species: But as I have several times sowed the Seeds of this, and have (from those which were taken from the same Cone) had both the Varieties produced; so I may positively assert, they are only seminal Variations.

The *Silver Fir* is easily known by its *Yew-like* Leaves, which are produced only on Two Sides of the Branches, being placed flat, like the Teeth of a Comb, and are white on their under Side. The Cones grow erect on the upper Side of the Branches. These fall to pieces, soon after the Seeds are ripe; so that, if they are not taken in time, the Seeds will be lost. They are usually ripe about the End of *October*. This Sort grows naturally in *Bavaria*, *Helvetia*, and other mountainous Parts of *Germany*; but the largest and most beautiful Trees are upon Mount *Olympus*: From this Tree is produced the *Strasburg Turpentine*; and the young Branches are put into *Brunswick Mum*; they are also frequently ordered in Diet-drinks, for the same Purpose as those of the other Sort.

These are the Two Species of *Fir* which have been used in Medicine in *England*; but, as they are so well known in all the Gardens and Plantations, we thought it would be needless to give their Figures, especially as they are already in most of the Herbals: Therefore we have chosen to exhibit another Species, which is less known at present, as believing it would be more acceptable; and, by this Figure, the Characters of the Genus, and also a clear Idea of these Trees, are convey'd.

PLATE II.

Abrotanum, *Tourn. Inst. R. H.* 459. *Artemisia*, *Lin. Gen. Plant.* 779.

Southernwood.

Fig. 1. Abrotanum *humile corymbis majoribus aureis*, *H. R. Par.* i. e. *Dwarf Southernwood*, with larger Golden Flowers.

Fig. 2. Abrotanum *campestre incanum Carlinæ odore*, *C. B. P.* i. e. *Hoary-field Southernwood*, smelling like the *Carlin Thistle*.

a, represents an under Branch of Leaves; *b*, the Flower-stem, which is generally destitute of Leaves toward the Top; *c*, a compound Flower, having several Florets included in One common Empalement; *d*, One of the Florets sitting upon the Embryo, which is afterwards the Seed.

The distinguishing Characters of this Genus agree with those of the *Wormwood* and *Mugwort*; so that each has been separated from the Habit of their Growth, by most Botanists; but Doctor *Linnæus* has brought them all under the Genus of *Artemisia* or *Mugwort*; but as there are a great Number of Species of *Southernwood* and *Wormwood*, and these Names having been long in the Dispensaries, and so well known in Medicine, it is better to abide by the former Distinctions, and keep them under their old Genera, than to join them together, which may hereafter occasion Confusion in the Knowledge of medicinal Plants.

The First Sort here figured, is mentioned in the Catalogue of Plants growing in the *Royal Garden* at *Paris*, where there is only the Name, without any Description; nor has it as yet been figured or described in any Botanic Book. This approaches near to the common *Southernwood*, which is cultivated in Gardens, and has, by some Botanists, been supposed the same. But this is a very humble Plant, never rising to a Stem, the Branches being produced near the Root, which always spread near the Ground; the old Branches generally decaying in Winter, and young ones are annually produced, which supply their Place. The Flowers are much larger, and of a deep yellow Colour, and these are every Year produced in *August*; whereas the common Sort seldom flowers in *England*; for although the Spikes of Flowers are frequently formed, yet it is so late in the Autumn before the Flower buds appear, that the Seasons are seldom favourable enough for them to open. The Leaves of this Sort have very little Smell, so that it may be easily distinguished from the common Sort; and these Differences continue in the Plants which are raised from Seeds; so that it is not a seminal Variety, as hath been supposed.

I received the Seeds of this Plant from *Istria*, which have grown at *Chelsea*; but, I suppose, it may grow in several other Countries. It was brought first to *England* by Doctor *William Sherard*, from the Garden at *Paris*, about the Year 1720. The common *Southernwood* has been many Years an Inhabitant in the *English Gardens*, where it is chiefly cultivated for its agreeable Scent. This grows naturally on the Mountains of *Cappadocia*, *Syria*, and other Eastern Countries; and being



ABIES _Picea foliis brevioribus, glaucis conis biuncialibus laxis.

Published according to the Act by P. Miller March ... _



ABROTANUM *humile Corymbis majoribus aureis. H.R.P.*

ABROTANUM *campestre incanum, carlinæ odore. C.B.P.*

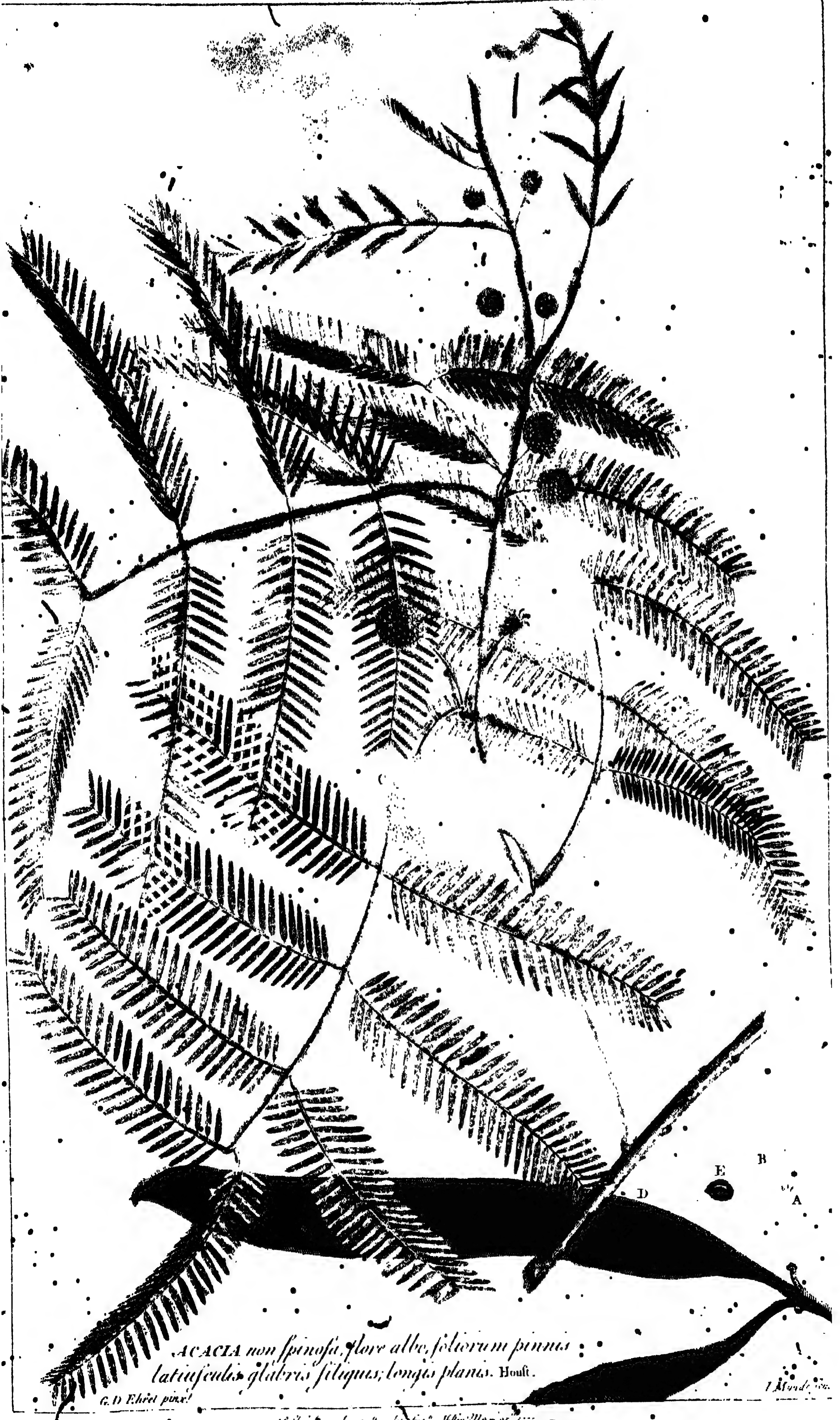
Publish'd according to the Act by J. Hill March 25th 1755



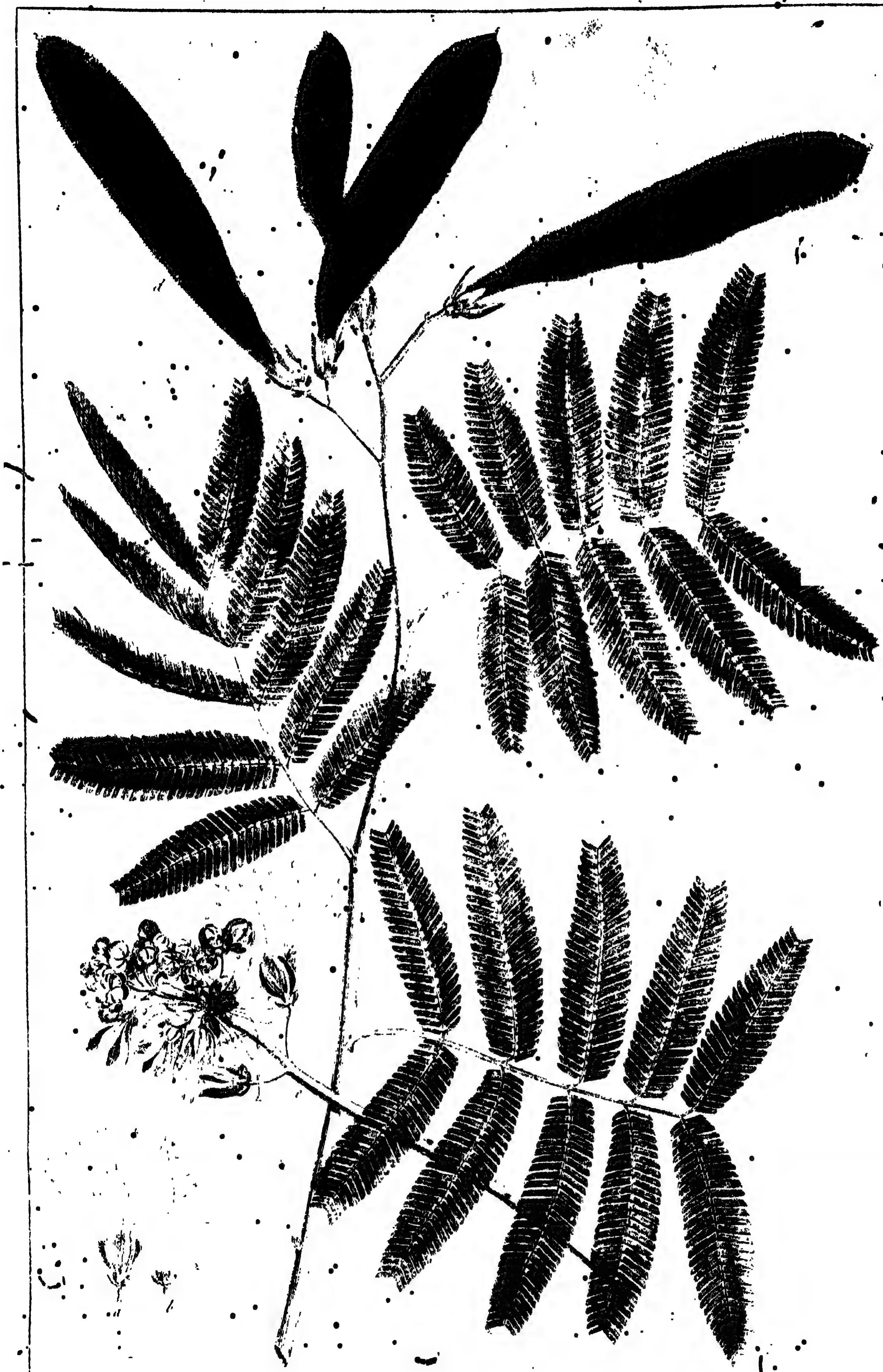
ABUTILON frutescens lanuginosum folio subrotundo flore amplo luteo patulo. calyce simplici. Houst.

ABUTILON Ribesii folio, flore carneo, fructu pentagono aspero. Houst.

G. D. Ehret pinxit — *Publish'd according to the Act* [illegible] — *J. Mynde sculp.*



ACACIA non spinosa, flore albo, foliorum pinnis latiusculis glabris, siliquis longis planis. Houst.



Acacia. Americana non spinosa flore purpureo, staminibus longissimis siliquis planis villosis pinnis foliorum tenuissimis. Houst.



ACACIA spinosa, tenuifolia, spinis singulis Cornu Bovinum per longitudinem fissum referentibus. Houst.

ing so well known in this Country, we imagine the Curious will be better entertained with the Figure here given, especially as the Characters of the Genus are more obvious in this Species than in the common Sort.

The Second Sort grows naturally in *Austria* and *Spain*, from both which Countries I have received the Seeds. This approaches near to the common Field *Southernwood*, which grows wild at *Elden* in *Suffolk*, and in the Road to *Lynn*, on the Borders of the Corn-Fields: So that Doctor *Tournefort*, and some other Botanists, have doubted if they were not the same Species; but there is a remarkable Difference between them, as I have constantly observed in the Plants which have grown at *Chelsea*; the Sort here figured having strong ligneous Branches, which grow erect, and are of long Duration; whereas the common wild Sort hath trailing Branches, which seldom continue longer than Two Years, and the Flowers generally hang downward; but these have erect Spikes, and the whole Plant hath a much stronger Scent, and is hoary; and these Differences continue in the Plants which are raised from Seeds: So it must be deemed a different Species.

In our common Field *Wormwood* there are Two Varities; one with a red, and the other a green Stalk, which have been supposed different Plants; but it is frequently found with both Colours upon the same Root; so it is an accidental Variety. *Matthiolus*, *Lobel*, and some other Botanic Writers, call this Plant *Artemesia tenuifolia*, i. e. *Narrow-leav'd Mugwort*.

P L A T E III.

Abutilon, *Tourn. Inst. R. H.* 99. *Sida*, *Lin. Gen.* 674.

Indian Mallow, or *Yellow Marsh Mallow*.

FIG. 1. Abutilon *frutescens lanuginosum, folio subrotundo, flore amplo luteo patulo, calyce simplici, Houst. Manusc.* i. e. Shrubby woolly *Indian Mallow*, with a large spread Flower, having a single Cup.

a, represents the Empalement, which is single, and is One of the Characters by which this Genus is distinguish'd from others of the malvaceous Tribe; *b*, shews the under Side of the Seed vessel resting on the permanent Empalement; *c*, the Corolla or Petals of the Flower; *d*, the Column in the Center of the Flowers, composed of both Organs of Generation; *e*, the Style, which is divided into several Parts.

The First Sort here figured is intirely new; it was discovered by the late Doctor *William Houstoun*, at *La Vera Cruz* in *America*, in the Year 1729, who sent the Seed to *Europe*, where, in several curious Gardens, the Plants were raised, and have flowered. This Sort hath not been mentioned by any of the Writers on Botany; so we have chosen to exhibit its Figure here, it being the most beautiful Species of this Genus at present known.

The Second Sort is, by Doctor *Van Royen*, in the *Prodromus* to the *Leyden* Garden, placed in the Genus *Melochia*; in which he is followed by Doctor *Linnæus*: But if the Fructification may be admitted as a distinguishing Character of the Genus, this cannot be placed there; for the Title *Melochia* has been, by all the former Botanists, applied to the *Corchorus*, or *Jews Mallow*, the Species of which have long Pods, which open in Two Parts, and are filled with small angular Seeds; but these are separated by Doctor *Linnæus* to another Class, under the Title of *Corchorus*: However, as this Plant agrees very well, in the most essential Characters, with those of *Abutilon*, so we have chosen to continue it under that Genus.

Fig. 2. Abutilon *Ribesii foliis, flore carneo, fructu pentagono aspero, Houst. Manusc.* i. e. *Indian Mallow*, with Currant Leaves, a Flesh coloured Flower, and a rough five-cornered Fruit. This is, by Doctor *Van Royen*, in the *Flora Leydensis Prod.* titled,

Melochia floribus solitariis capsulis depressis pentagonis, angulis obtusis; but I think it should, by no means, be put under this Genus, for the Reasons before-mentioned. It is probable that this is *Malva vel Alcea fruticosa Ribesii foliis, seminibus asperis, Sloan Cat.* 96. but the Description of it, in the History of *Jamaica*, is not sufficient to determine it exactly.

This Plant was discovered by the same Gentleman, in *Jamaica*, in 1730, who sent the Seeds to *England*, *Holland*, and *France*, where the Plants were raised, and are yet preserved, in several curious Gardens. Both these Plants are tender, and seldom continue more than Two Years. The Second Sort perfects Seed very well in *England*; so that it may be kept in our Gardens; but the First seldom does. They flower in *July* and *August*, and the Seeds ripen in *October*. The Title of this Genus of Plants is taken from *Avicena*, an *Arabian* Physician, who applied this Name of *Abutilon* to a Plant of the malvaceous Tribe; but whether to any of this Genus, is not so easy to determine. However, *Dodonæus*, and many of the later Writers on Plants, have applied this Title to the Genus here mentioned; but, it being an *Arabic* Name, Doctor *Linnæus* has changed it to *Sida*, which is taken from *Theophrastus*.

There is not one Species of this Genus, which is a Native of *Europe*. The most common Sort, which is mentioned by *Dodonæus*, grows plentifully in *North America*, where it is often used for the same Purposes as the *Marsh Mallow* is in *Europe*. The Seeds are frequently brought from thence to *England*, and the Plants thrive very well in the open Air, and perfect their Seeds, which, if suffered to scatter, will produce young Plants the following Spring; but they are annual, and perish with the first Frost in Autumn. There is not any Species of this Genus which is used in Medicine, or for any other Purpose, in *England*, though many of them, which abound in the Islands of *America*, as also in most of the hot Parts of *Asia* and *Africa*, are frequently used by the Inhabitants, as Emollients; and, in some Countries, the young Plants are boiled and eaten, as other Sallet Herbs.

PLATE IV.

ACACIA, *Tourn. Inst. R. H.* 605. *Mimosa, Lin. Gen. Pl.* 522.

Egyptian Thorn, or Binding Bean-Tree.

THE Species represented in this Place is,

ACACIA *non spinosa, Flore albo, foliorum pinnis latiusculis glabris, siliquis longis planis, Houst. Manusc.* i. e. *Acacia* without Thorns, having a white Flower, broad smooth Leaves, and long flat Pods. This is the Thirteenth Species of *Acacia* mentioned in the Gardeners Dictionary; and it may be the *Acacia non spinosa, siliquis latis compressis, Flore albo* of *Plumier*, his Name agreeing to the Characters of this Plant; but as there is only the Name published in his Catalogue of *American* Plants, so it is difficult to determine.

Fig. *a*, represents a single Flower separated from the Globe, which is composed of many Flowers collected into a round Ball, as at *c*; their Stamina are shewn at *b*; the Seed-vessel is represented at *d*; and *e* is a single Seed taken out of the Pod.

The Title of *Acacia* has been applied to this Genus of Plants, by most of the Writers on Botany, both ancient and modern; but Doctor *Linnæus* has joined the Plants of this Genus to those of *Mimosa*, as the Characters of the Two Genera do agree pretty well: But as the Title of *Acacia* has been long known, both by Botanists and Physicians, so it should not be expunged for one of later Date; therefore the distinguishing the *Mimosa* from this Genus, by their Leaves shrinking when touched, should be admitted, to avoid Confusion, as there are so great Numbers of Species in each Genus; and hereby the officinal Name may be preserved, which otherwise will be lost, unless the Title of the Genus is changed from *Mimosa* to *Acacia*, and all the Species of both included under it.

This Plant was discovered by the late Doctor *William Houstoun*, at *La Vera Cruz*, where it grows naturally, in great Plenty. The Seeds of this were sent to *Europe*, by that Gentleman, in 1729, with many other rare Plants; and this has produced Flowers, and perfected Seeds, in the Physic Garden at *Chelsea*: It commonly flowers in *April*, and the Seeds are ripe in Autumn.

PLATE V.

ACACIA *Americana, non spinosa Flore purpureo, staminibus longissimis siliquis planis villosis, pinnis foliorum tenuissimis, Houst. Manusc.* i. e. *American Acacia* without Thorns, purple Flowers with very long Stamina, flat hairy Pods, and very narrow Leaves. This is the Eleventh Species of *Acacia* mentioned in the *Gardeners Dictionary*.

FIG. *a*, represents a single Flower with its Cover; *b* shews the Involucrum separated from the Flower; *c*, a Spike of Flowers; *d*, the Pods.

This is one of the most beautiful Species of this Genus; the Petals of the Flowers being much larger than of any Species yet known; and these being of a fine purple Colour, with their Stamina being stretched out to a considerable Distance beyond the Petals, makes a charming Appearance when the Trees are covered with Flowers, and when the Pods are ripe, being of an Iron Colour, and hanging plentifully in every Part of the Tree, renders the Prospect of them very pleasing, at a small Distance.

This Plant approaches near to one of *Plumier*'s *Acacias*, which he titles *Acacia frutescens non aculeata Flore purpurascente*; but, upon comparing it with the Plants growing in the Royal Garden at *Paris*, which were raised from the Seeds sent from *America* by that Author, I find them very different in their Leaves; those of his being much more ramose, and the Pinnæ are broader and much shorter than those of this Plant; but how they may differ in their Flowers and Pods, I cannot say, as I have not seen either Flowers or Fruit of *Plumier*'s Plant. The Seeds of this Sort were sent to *Europe*, with those of the former Sort, by the same Gentleman, from *La Vera Cruz* in *America*.

PLATE VI.

Acacia spinosa tenuifolia spinis singulis cornu Bovinum, per longitudinem fissum referentibus, Houst. Manusc. i. e. Narrow-leav'd *Acacia*, with Spines resembling an Ox's Horn, which seem split lengthwise.

FIG. *a*, shews a single Flower magnified; *b*, a whole Globe of Flowers in their natural Size; *c*, the Spines, which appear as if they were split through the Middle. This is the Seventeenth Species of *Acacia* mentioned in the *Gardeners Dictionary*.

It is one of the most singular Species of *Acacia* yet known, the Spines being spread open, and being flat, with the Appearance as if split lengthwise, is peculiar to this Sort. The Leaves are also very beautiful; but the Flowers are small, and of an herbaceous Colour, so they make no great Appearance; but, in the natural Place of its Growth, they are produced almost through the Year, and a Succession of Pods on the same Tree is generally to be found; but the Seeds are commonly eaten by Insects, before they come to Maturity; so that it is very difficult to get any which are good. For, in examining a great Number of Trees, there were not more than Seven or Eight good Pods to be found.

This is also a Native of *La Vera Cruz*, and was discovered at the same Time with the other Two Sorts, by the same Gentleman who sent Seeds and dried Samples of the Plant to *Europe*.

These Three Sorts of *Acacia*, being new, and of singular Beauty, tempted us to give their Figures, which, we hope, may prove acceptable to the Public; and therefore believe it will be unnecessary to make any Apology for exhibiting so many Species of the same Genus.

PLATE

PLATE VII.

ACANTHUS, *Tourn. Inst. R. H.* 176. *Pl.* 80. *Lin. Gen. Plant.* 711.

BRANK URSINE *or* BEARS-BREECH.

THIS Genus of Plants is ranged in the Fifth Section of the Third Class of Plants, in *Tournefort's Institutions of Botany*, intituled, *Herbs with anomalous Flowers of One Leaf*. Mr. *Ray* places this Genus in his Class intituled, *Herbs whose Seeds are lodged in Pods, having a difform or irregular Flower of One Leaf*. By *Rivinus* it is ranged under his Class of *irregular Flowers of One Leaf*. Doctor *Linnæus* ranges it in his Fourteenth Class, intituled, *Didynamia Angiospermia*. And Doctor *Van Royen*, in the *Prodromus* to the *Leyden Garden*, places this Genus in his Class of Plants intituled, *Ringentes Angiospermiæ*.

The particular Characters of this Genus are described in the *Gardeners Dictionary*. *a*, shews a single Flower, separated from the Spike; *b*, represents the Fore-part of the Flower, which is divided into Three Segments; *c*, the Hinder-part of the Flower; *d*, One of the Stamina at full Length, with its Apex taken out of the Flower; *e*, the Ovarium, which afterward becomes the Seed-vessel; *f*, the Seed-vessel intire; *g*, represents the Seed-vessel cut transversely, shewing the Seeds as they are lodged in the Husk; *h*, the prickly Empalement or Cover of the Flower.

The Species here represented is,

ACANTHUS *rarioribus & brevioribus aculeis munitus*. *Tourn. Inst. R. H.* 176. i. e. BEARS-BREECH or BRANK URSINE, guarded with fewer and shorter Prickles. By Doctor *Plukenet* this Species is titled, *Acanthus sylvestris mitioribus spinis. Almag. Bot.* and in the Catalogue of Plants in the Garden at *Pisa*, it is mentioned with this Title, *Acanthus medius rarioribus & brevioribus aculeis donatus Fagon*; and in this Book there is a Figure of a Leaf in the Second Plate, which the Author supposes to be a different Species from that which is here represented; but as I have raised several Plants from the Seeds, which were sent me by the Author, so I am convinced that it is the same Plant here figured, having had it growing in the *Chelsea Garden* many Years, standing near the Plant of *Tournefort's*, which was raised from Seeds sent from the Royal Garden at *Paris*, and has been an old Inhabitant in *Chelsea Garden*.

Doctor *Linnæus* mentions but Two Species of this Genus, which are *European* Plants; these are the *smooth* and *prickly Bears-breech*; in which he is followed by Doctor *Van Royen*; so that neither of them mention this Sort, supposing it to be only a Variety; but from many Experiments which I have made, in raising the Three Sorts from Seeds, I can affirm they never vary, but constantly produce the same Species as the Seeds were gathered from; as doth also the Fourth Sort, mentioned in the *Gardeners Dictionary*, which approaches near to the first or *smooth leav'd* Sort, but the Leaves are larger, and of a shining Green.

It is generally supposed, that the Foliage on the Capitals of the *Corinthian Pillars* is taken from the smooth Sort of *Acanthus*; but by those Figures which we see represented in the Books of Architecture, they have a much nearer Resemblance to this Species. And as this Sort grows naturally in many Places in *Italy*, and also in the Islands of the *Archipelago*, so we may suppose that this may be the Plant from which they composed the Capitals of the Pillars of that Order of Architecture, especially as it is much more common in those Countries.

The smooth Sort of *Bears-breech* having been figured in several Books of Botany already, and there being no good Figure of this Plant extant, so we imagined that this might be more acceptable to the curious; especially as the essential Characters of the Genus are the same in both, the Difference between the Two Species being in their Leaves, this Sort being much more jagged; and the Incisures of the Leaves being terminated by Spines; whereas those of the other Sort have fewer Cuts, which are obtuse, and have no Spines on them.

The smooth Sort is that which is directed by the College of Physicians to be used in Medicine; but it is now rarely prescribed; for the Herb women generally supplied the Markets with either the *Helleboraster*, or *Sphondylium*, instead of this Plant; so that when it was ordered, the right Plant was very seldom used, which may have occasioned the leaving of it out of Practice. The *Germans* in general substitute the *Sphondylium* or *Cow-parsnep* for this, which is by most of the Writers intituled *Branca Ursina*; by which Name it is mentioned in all their Dispensaries.

The Leaves of this Sort are a Foot and half long, about Nine Inches broad, arising with a Foot-stalk immediately from the Root; between the Leaves arise the Flower-stems, which are commonly Three Feet high, which are garnished with Flowers from near the Ground to their Top.

These Plants begin to flower the End of *May*, and continue till the latter End of *August*; the Flowers at the Bottom of the Spike appearing first, so that on the same Spike there is often a Continuation of Flowers near Two Months.

PLATE VIII.

ACER, *Tourn. Inst. R. H.* 615. *Pl.* 386. *Lin. Gen. Plant.* 1023. *Raii Meth.* 157.

The MAPLE-TREE.

THIS is placed by *Tournefort* in the Third Section of his Twenty-first Class, intituled, *Trees and Shrubs with a Rose-flower, whose Pointal turns to a multicapsular Fruit*. Doctor *Linnæus*, in the former Editions of his *Genera Plantarum*, ranges this in his Eighth Class of Plants, intituled, *Octandria Monogynia*, from the Flowers having Eight Stamina, and a single Style. But, in the last Edition of his Method, he has removed it to his Twenty-third Class of *Polygamia Monœcia*, because there are Male and Hermaphrodite Flowers on

the same Plant. Mr. *Ray* places this Genus in his Class of Trees with a dry Fruit, having Wings.

The Characters of this Genus are described in the *Gardeners Dictionary*; *a*, represents an Hermaphrodite Flower, with its Eight Stamina; *b*, a Male Flower, having no Ovarium; *c*, the Calyx or Flower-cup; *d*, the Seeds with its Wings.

The Species here represented are,

Fig. 1. ACER *Platanoides. Munt. Phyt. Fig.* 11. Maple with a Plane-tree Leaf, commonly called the *Norway Maple*. This is the *Acer montanum orientalis Platani foliis atro-virentibus. Pluk. Phyt. Tab.* 252. *f.* 1. and in the *Hortus Cliff.* it is titled, *Acer foliis palmatis acute dentatis, floribus corolla speciosis corymbosis* 143. and in the *Flora Suec. Acer foliis quinquelobis acuminatis acute dentatis glabris, floribus corymbosis, p.* 303.

This Tree is a Native in the Northern Parts of *Europe*, and was first introduced into the *English* Gardens from *Norway*; so has been generally known by the Name of *Norway Maple* among the Gardeners. It grows to a large Tree; the Wood is hard and tough, and of a white close Texture, and is much used by the Inhabitants of the Countries where it naturally grows. It hath not been much cultivated in *England*, till of late Years; so that there are few large Trees to be found in the Gardens at present: But as it is found to be of quick Growth, and extremely hardy, resisting the Spray of the Sea better than most other Sorts of Trees, so it has been greatly propagated within a few Years past in the Nurseries about *London*. This is the Seventh Species in the *Gardeners Dictionary*.

Fig. 2. ACER *Virginianum, folio majore, subtus argenteo, supra viridi splendente. Pluk. Alm.* 7. *Phyt. Tab.* 2. *f.* 2. The red or scarlet Flowering Maple of *Virginia*. This is, by Doctor *Herman*, titled, *Acer Virginianum foliis subtus incano, flosculis ex viridi rubentibus. Par. Bat. p.* 1. *Tab.* 1. and in the *Hort. Upsal. Acer foliis quinquelobis acuminatis acute serratis, petiolis teretibus, p.* 94. In *Linnæus*'s Species of Plants, *Acer foliis quinquelobis subdentatis subtus glaucis, pedunculis simplicissimis aggregatis*, 1055.

The Figures which have been exhibited of this Species are very imperfect; that in Doctor *Plukenet* hath no Flowers, and Doctor *Herman*'s Figure has but few, and those are represented too small. Mr. *Catesby*'s Figure represents the Seed-vessels very perfect, but the Flowers are not very correct; the Stamina are stretched out too far from the Corolla, and are ill-coloured.

There are Two Varieties of this Tree cultivated in the Nurseries near *London*. The first was sent to *England* by Mr. *Banister*, from *Virginia*, and has been many Years in the *Bishop of London*'s Garden at *Fulham*, the *Physic Garden at Chelsea*, and some others. This produces small scattering Bunches of Flowers.

The other was raised in the Gardens of Sir *Charles Wager*, at *Parsons Green* near *Fulham*, in the Year 1725. The Flowers of this are produced in closer Bunches, and the Branches are fuller garnished with them than are those of the other; so that the Trees make a much finer Appearance when in Flower. The Gardeners distinguish this by the Title of Sir *Charles Wager*'s *Maple*, the other being called *Scarlet Flowering Maple*; but as there is no Difference in their Flowers, Seeds, or Leaves, so they must be deemed but One Species, as they are only accidental Varieties arising from Seeds. This is the Fifth Species in the *Gardeners Dictionary*, where the other is placed as a distinct Sort; but, upon Examination, I can find no specific Difference between them. This seldom grows very large in *England*; the largest Trees which I have seen are not more than Twenty Feet high, and their Stems not more than One Foot Diameter. The Wood is close and white, but the Branches are often split down from the Trees, where they are much exposed to the Winds. From this Tree (as from most of the other Sorts of Maple), distils a sweet Juice from the Parts which are wounded, during the Spring, which, being boiled, produces Sugar.

The First Sort flowers about the Middle of *April*, and the Second in the Middle or latter End of *March*, at which time they make a fine Appearance.

P L A T E IX.

ACHILLEA, *Lin. Gen. Plant.* 871. *Ptarmica, Tourn. Inst. R. H.* 496. *Tab.* 283. *Ageratum, Raii Meth. Emend.* 38.

Sweet Maudlin, or *Common Maudelin*.

THIS Genus of Plants is, by Doctor *Tournefort*, ranged in the Third Section of his Fourteenth Class of Plants, intituled, *Herbs with a radiated Flower, having no Down adhering to their Seeds*. By Mr. *Ray* it is placed in his Class of Plants, intituled, *Herbs with a corymbiferous naked Flower*. By Doctor *Linnæus* it is placed in his Nineteenth Class of Plants, with Male and Female Flowers inclosed in the same Empalement, whose Stamina and Anthera are joined in a Cylinder.

The Species here represented is,

ACHILLEA *foliis pinnatis foliolis lineari-lanceolatis basi sursum auctis. Flor. Leyd. Prod.* 176. Maudlin with hoary Tansey Leaves. This is, by Doctor *Tournefort*, titled, *Ptarmica Orientalis, foliis Tanaceti incanis flore aureo. Cor. Inst.* 37. It is the Sixth Species of *Ageratum*, in *Boerhaave*'s *Index Plantarum*.

This Genus of Plants was, by the Botanists of the last Age, titled *Ageratum*, in *English* MAUDLIN or MAUDELIN; but Doctor *Tournefort* has applied that Title to a Plant (whose Characters are very different from those here mentioned) which is described in the *Hortus Lugdunensis*: He gave the Title of *Ptarmica* to this Genus, as the Characters of the common *Ptarmica*, or Sneezewort, agreed pretty well with these. But Doctor *Linnæus* has joined these to the *Milfoils*, or *Yarrow*, giving this Epithet of *Achillea* to the Genus, which is an old Title of the *Yarrow*.

The Characters of this Genus are described in the *Gardeners Dictionary*, under the Article *Ptarmica*. *a*, represents a single winged Leaf; *b*, a single Head of Flowers, which are inclosed in one common Empalement; *c*, the Half-Florets, which compose the Rays of the Flower; *d*, a Floret, or Hermaphrodite Flower; of which there are several in each Head, resting upon the Embryo's of the Seeds.

This is the Thirteenth Species of *Ptarmica* mentioned in the *Gardeners Dictionary*, of which there hath been no Figure as yet exhibited in any of the Books of

Botany;



ACHILLEA *foliis pinnatis foliolis lineari lanceolatis basi pinnatim incisis* [illegible]



ACHILLEA [illegible]

Mauddon



Fig. 1. ACHYRANTHES caule erecto, spicis ovatis lateralibus calycibus lanatis. Lin. Sp. pl. 204

Published according to Act of Parl. by P. Miller Apr. 20 1756.

Amaranth



ACONITUM *salutiferum; seu Anthora. C. B. P.*

Wolfsbane

Botany; so we imagined it might be more acceptable to the Curious to give the Figure of this, than to have taken the *Yarrow*, which is a Plant well known to every Herb-woman.

The Seeds of this Plant were sent to the Royal Garden at *Paris*, by Doctor *Tournefort*, who discovered it growing naturally in the *Levant*. And from that Garden the Seeds have been distributed to many curious Botanic Gardens. I received a Plant of this Sort from Doctor *Adrian Van Royen*, late Professor of Botany in the University at *Leyden*. The Plant is very hardy, will live in the open Air, and propagates easily by Slips, but doth not perfect Seeds in *England*, unless in warm dry Seasons. The Plant is low and bushy, but the Flower-stems rise near Two Feet high.

It begins to flower in *June*, and continues to produce new Flowers till *September*.

P L A T E X.

ACHILLEA *foliis lanceolatis obtusis acute serratis. Lin. Hort. Cliff.* 413. *Sp. Plant.* 897.

Common or *Sweet Maudlin.*

THIS is the *Ageratum foliis serratis, C. B. P.* and by *Dodonæus* it is called *Balsamita minor*; by Doctor *Tournefort* it is titled, *Ptarmica lutea suaveolens. Inst. R. H.* 497. by *John Bauhin* it is titled, *Ageratum plerisque, Herba Julia quibusdam.* Hist. Vol. 3. 142. This is supposed to be the *Eupatorium Mesues Offic.* and has been of long standing in the Dispensaries, but at present seldom used in Medicine. *a*, represents a Flower of the common Sort magnified, whose Disk, *b*, is composed of many Florets; *c*, shews a single Floret sitting on the Embryo of the Seed; *d*, is a Half-Floret, of which the Rays or Border of the Flower is composed.

As this Plant has been long used in Medicine, so I have given the Figure of it, to distinguish it from another Species, which has taken Place of this in the *English* Gardens and Markets; so that whoever asks for Maudlin now, will always have the other Plant substituted for it; which is very different in Form, Smell, and Colour of the Flower, from the Maudlin. Nor is the Sort which is here figured, to be found in any of the Gardens where medicinal Plants are propagated to supply the Markets; so that the Plant which is now generally sold in the Markets for *Maudlin*, is the *Ptarmica foliis profundius serratis, latè viridibus elatior, H. L.* i. e. *Taller Sneezewort*, with dark-green Leaves; which are deeply serrated. This being a much hardier Plant than the other, and propagating easily by its creeping Roots, the Gardeners have neglected the other entirely; so that unless the Persons who are to use the Herb in Medicine, are well acquainted with it, they will be sure to have the other imposed on them; but by any Person who is skilled in the Knowledge of Plants, it may be easily distinguished. For the Sort which is now vended in the Markets hath very long narrow deep-green Leaves, which are deeply sawed on their Edges, resembling those of the common *Sneezewort*. The Flowers of this Sort do also resemble those of *Sneezewort*, being white, and the Rays are spread open like them; but the Leaves are longer, and of a deeper Green, and the Stalks rise much higher. Yet the whole Plant has a much greater Resemblance of the common *Sneezewort*, than of the *Maudlin* for which it is sold.

There are Two other Species of this Genus, which approach near to the common Maudlin, one of them is titled by *Tournefort*, *Ptarmica foliis serratis, corymbus longioribus & magis compactis.* This hath closer and longer Heads of Flowers than the common Sort. The other hath broader Leaves, and smaller Flowers: The last I raised from Seeds, which came from *Spain*. But as these are not common in *England*, so there is no Danger of their being brought to the Markets.

This Plant begins to flower in *June*, and continues producing new Flowers till *September*.

P L A T E XI.

ACHYRANTHES, *Lin. Gen.* AMARANTHUS, *Pluk. Alm.* 27. *Chenopodium, Burm. Zeyl.* 60.

Spiked Amaranthus.

THE Characters of his Genus are,

The Flower consists of Five Leaves, and are included in a Three-leav'd Empalement; each Flower has Five Stamina, which are equal in Length with the Petals: The Pointal changes to a roundish Capsule, in which there is a single roundish Seed.

The several Species of this Genus of Plants have been ranged, by the Writers on Botany, under many Genera; the first which was brought into the *English* Gardens, was titled, *Amaranthus siculus spicatus*, by Father *Boccon*; and the others which have been since introduced, were differently titled; so that neither of them were properly placed, till Doctor *Linnæus* constituted this Genus.

Fig. 1. ACHYRANTHES *caule erecto, spicis ovatis lateralibus, calycibus lanatis. Lin. Sp. Plant.* 204. i. e. Achyranthes with an upright Stalk, oval Spikes of Flowers coming on the Side, with woolly Cups. This is called by Doctor *Burman*, *Chenopodium incanum racemosum, folio majore minori opposito, Plant. Zeyl.* 60. i. e.

i. e. Hoary-branching Goosefoot, with large and small Leaves opposite. And by Doctor *Plukenet* it is called, *Amaranthus Indicus verticillatus albus foliis lanugine incanus*, *Almag.* 27. i. e. Indian Amaranth, with white Whorles, and hoary Leaves.

a, represents the oval Spike of Flowers coming out from the Wings of the Leaves, which are so small as scarce to be discovered with the naked Eye; *b*, shews the Seed taken out of the Cover.

This Plant is tender, so must be raised on a Hotbed, and afterward kept under Glasses, otherwise it will not perfect its Seeds in *England*.

Fig. 2. Achyranthes *caule erecto, foliis obverse-ovatis undulatis, floribus reflexis.* Spiked Amaranth, with an upright Stalk, oval waving Leaves, and reflexed Flowers.

This Plant approaches near to one which is figured by Doctor *Burman*, in his *Zeylon* Plants, which he titles *Amaranthus spicatus Zeylanicus foliis obtusis, Amarantho siculo Boccone similis*, *Tab.* 5. *f.* 3. But the Leaves of his Plant are smooth and plain, whereas those of ours are hairy and waved, and are larger than those of his; the Spike and Flowers of both are very like, both of them agreeing in this with the common Sort; *a*, represents a single Flower taken from the Spike, with the Seed-vessel joined at the Bottom, which is inclosed in the permanent Empalement.

This Genus of Plants is ranged in *Linnæus*'s Fifth Class of Plants, intituled, *Pentandria*, from the Flowers having Five Stamina, and in the Sixth Division of that Class which he calls Incomplete Flowers.

The first Sort here figured grows naturally in several Parts of *India*, and also at the *Cape of Good Hope*, from whence I received the Seeds, in the Year 1752.

The Seeds of the Second Sort I received from *Malabar*, in the Year 1751, which has flourished at *Chelsea*, and perfected Seeds annually, which have always produced the same Plants, never varying from the Original, so may be deemed a distinct Species.

This Plant is too tender to thrive in the open Air in *England*; so must be raised in an Hot-bed in the Spring, and the Plants must be kept under Glasses, otherwise they will not perfect their Seeds.

They both flower in *July*; and if the Plants are placed in a Stove, they will continue flowering most Part of the Winter, and will perfect their Seeds very well.

PLATE XII.

Aconitum, *Tourn. Inst.* 424. *Tab.* 239, 240. *Raii Method.* 79. *Lin. Gen. Plant.* 603.

Monks-Hood, or *Wolfs-bane.*

THIS Genus of Plants is ranged by Doctor *Tournefort* in his Eleventh Class, intituled, *Herbs and Under-Shrubs with an anomalous Flower, composed of several Leaves.* Mr. *Ray* places this Genus in his Class of Plants with *irregular Flowers, which are succeeded by several Seed-vessels:* And Doctor *Linnæus* ranges it in the Third Division of his Thirteenth Class of Plants, intituled, *Polyandria Trigynia*, whose Flowers have many Stamina, and Three Styles.

The Characters of this Genus are exhibited in the *Gardeners Dictionary*, under the Article *Aconitum*.

The Species here figured is,

Aconitum *salutiferum seu Anthora. C. B. P.* 184. Wholsome Monks-hood, or Counter-poison to Wolfsbane. This is the Fourth Species in the Gardeners Dictionary. By *John Bauhin* it is titled, *Antithora flore luteo Aconiti*, *Vol.* 3. *p.* 660. By *Tabernemontanus*, *Anthora Zedoaria, Aconitum salutiferum*, *Icon.* 112. and by Doctor *Linnæus*, *Aconitum floribus pentagynis*, *Sp. Plant.* 532.

a, represents a single Flower spread open, which is composed of several dissimilar Petals; *b*, shews the horned Styles, which are hid in the upper Petal of the Flower *c*, which is shaped like an Helmet or Cowl; *d*, represents the membranaceous Seed-vessels, which are collected into an Head; *e*, shews the Seed out of the Cover.

This Species of *Monks-Hood* is that which is made use of in Medicine, and is esteemed an Antidote to those which are poisonous; so whenever *Aconite* is prescribed, this Sort is always intended. It is the Root only which is used, and at present is never prescribed in *England*; for although some Persons have accounted it a good Antidote to expel the Poison of the *Napellus*, or Wolfs-bane, as also to be of Service against the Plague, yet as most of the other Species are a deadly Poison not only to Men, but to Brutes also, so few Persons care to make use of a Plant in Medicine upon so slender Authority, especially as there is Danger of having one of the other Species substituted for it.

This Plant flowers in *July* and *August*, and is an ornamental Plant in Gardens.

PLATE

PLATE XIII.

ADHATODA, *Raii Method. Plant.* 92. *Tourn. Inst. R. H.* 175. *Boerh. Ind. Alt.* 239. *Justicia, Lin. Gen. Plant.* 26.

The MALABAR-NUT, *or* SNAP-TREE.

THIS Genus is by Mr. *Ray* ranged under his Class of Plants, with a Lip, or hooded Flower. By Doctor *Tournefort*, it is placed in the Eighth Section of his Thirteenth Class, titled Plants with an anomalous or hooded Flower of One Leaf. But Doctor *Linnæus* has joined the Species of this Genus to the *Justicia*, which is a Genus that was established by the late Doctor *William Houstoun*, who gave this Title to some Plants which he had discovered in *America*, whose generical Characters differed from all those of the *Genera* which had been before established; for the Shape of the Flower, and the Seed-vessel of his Plants, are different from those of the *Adhatoda*. The upper Lip of the Flower of *Justicia*, is stretched out much longer than the lower, and is divided into two Segments; whereas those of the *Adhatoda* are almost equal, and the upper Lip intire. The Seed-vessel of *Justicia* is shaped like an inverted Spear, and contains many flat Seeds, ranged closely in a Row, the whole Length; and the Vessel opens only on one Side; whereas that of the *Adhatoda* opens on both Sides, and the Seeds are differently shaped: So they should not be joined in the same Genus.

The Characters of this Genus are exhibited in the *Gardeners Dictionary*.

The Species here represented is,

ADHATODA *Indica, folio saligno, flore albo. Boerh. Ind. Alt.* 239. The Widow-leav'd Malabar-nut, with a white Flower, commonly called the *Snap-tree*. This is by Doctor *Plukenet* titled *Ecbolii Indici Adhatodæ cuculatis floribus æmula Hyssopifolia, ex Insulis fortunatis. Almag. Bot.* 132. to which Name Doctor *Morrison*, in the Third Volume of his *History of Plants*, p. 604. has subjoined *Acanthoides hyssopi latioris folio Canariensis*. Doctor *Linnæus* has titled it *Justicia fruticosa, foliis lanceolatis integerrimis, pedunculis trifloris ancipitibus, bracteis calyce brevioribus. Sp. Plant.* 15. placing it in his Second Class of Plants, intituled *Diandria*. *a*, represents the under Lip of the Flower, which is deeply cut into Three Segments. *b*, shews the upper Lip, which is drawn to a Point at the Top. *c*, the Two Stamina with the Pointal. This Plant doth not produce Seeds in *England*; but is propagated by Cuttings, during any of the Summer Months. It produces Flowers most of the Summer Months; and if the Plants are preserved in a moderate Warmth in Winter, they will begin to shew their Flowers very early in the Spring; but their Flowers make but an indifferent Appearance. The Leaves continue all the Year green; and when the Plants are regularly trained up, they add to the Variety in Winter, when intermixed with other exotic Plants in the Stove. The Plants will grow to the Height of Three or Four Feet, and may be easily trained into Pyramids, furnished regularly with Branches from the Surface of the Ground upward.

This Plant was raised from Seeds, which were brought from the *Canary Islands*, about the Year 1690, in the Gardens of *Hampton-Court*, at which Time there was a noble Collection of curious Plants there preserved.

PLATE XIV.

ADONIS, *Dillen. Nov. Gen.* 4. *Lin. Gen. Plant.* 618. *Ranunculus, Tourn. Inst. R. H.* 291. *Helleborus, C. B. P.* 186. *Tab. Icon.* 721. *Buphthalmum, Clus. Hist.* 333.

ADONIS FLOWER, BIRDS-EYE, *or* PHEASANTS-EYE.

THIS Genus of Plants is by Doctor *Linnæus* ranged in the Seventh Section of his Thirteenth Class, intituled *Polyandria Polygynia, i. e.* Plants whose Flowers have many Stamina and Germina. Doctor *Tournefort* has ranged the Plants of this Genus under the Article *Ranunculus*; as he also hath the lesser *Celandine*, the *Hepatica*, and *Spearwort*; whereby the Number of Species in that Genus are multiplied so greatly as to occasion some Confusion, and renders it difficult for a Learner to reduce the Plants to their proper Genus. Doctor *Linnæus* has made the principal Character of *Ranunculus* to consist in the *Nectarium*, which is situated at the Base of the Petals; whereby this Genus of *Adonis* must be separated from *Ranunculus*.

The Species here represented are,

Fig. ... ADONIS *Hellebori radice, Buphthalmi flore, H. L. Bo... Ind. Alt.* Hellebore-rooted ADONIS, or PHEA-S...-EYE, frequently called *Fennel-leav'd Black Helleb...* Doctor *Tournefort* continues the Name given to this Plant in the Catalogue of the Plants in the Royal Garden of *Montpelier*, which is, *Ranunculus fænicu[l]aceis foliis, Hellebori nigri radice. H. R. Monsp. Tourn. Inst.* 291. *Caspar Bauhin*, in his Pinax, calls it *Helleborus niger tenuifolius Buphthalmi flore*, p. 186. *Tabernæmontanus* titles it *Helleborus Hippocratis. Icon.* 721. *Clusius*, in his History of Plants, calls it *Buphthalmum Dodonæi, Pseudo-elleborus niger.* p. 333. And Dr. *Linnæus*, in the Catalogue of Mr. *Clifford*'s Garden, titles it *Adonis radice perenne*, p. 231. but, in his Enumeration of the Species of Plants, he has altered the Name to *Adonis flore dodecapetalo, fructu ovato*, p. 547.

This Plant grows naturally on the Mountains in *Bohemia, Prussia*, and other Parts of *Germany*; and has been long an Inhabitant in the *English* Gardens, where it is cultivated for its early coming to flower. In mild Seasons the Flowers open in *March*; but generally they are in Beauty pretty early in *April*, and continue about a Month, if the Season is not too warm, or their Situation not too much exposed to the Sun; for the Plants thrive better on a Border exposed to the East, and the Flowers will continue longer in Beauty, in that Exposure, than if planted in a warmer Situation. When the Roots of these Plants are strong, they will produce a great Number of Stalks from each, which will rise about a Foot high, and on the Top of each is generally one large yellow Flower: In order to have them strong, they should remain untransplanted; and the Ground about them should be annually dug and loosened every Autumn, being careful not to disturb or injure their Roots.

The Roots of this Plant have been used by the *Germans* for those of the true *Black Hellebore* of *Hippocrates* in Medicine, and have been supposed to be the same, by many of their Writers on Medicine and Botany; but that has been disproved by most of the later Writers on those Subjects.

Fig. 2. represents the ADONIS *sylvestris floris luteo, foliis longioribus. C. B. P.* 178. Wild Adonis, or Birds-eye, with a yellow Flower, and longer Leaves. This is by Doctor *Tournefort* titled *Ranunculus arvensis foliis Chamæmeli, flore Citrino. Inst. R. H.* 291. *a*, shews the Flower, with its Petals expanded; *b*, the Stamina, with their Apices, which occupy the Middle of the Flower, and between these are placed the Germina, which afterward become the Seeds. Doctor *Linnæus* supposes this to be only a Variety of the common *Adonis*, with a Red Flower, which is frequently sown in Gardens, and is known among the Gardeners and Seedsmen by the Name of *Flos Adonis*, or Adonis Flower; and sometimes it is called *Birds* or *Pheasants-eye*. But there can be no doubt of these being Two distinct Species. The Leaves of the Yellow Sort, which is here figured, being longer and finer cut than those of the Red Sort, and the Plants do grow much taller; which Differences are constant, and never vary, as I have found by sowing the Seeds of each for more than Thirty Years; during which Time I never could observe that there was the least Variation in either of the Species. The Yellow Sort was brought into *England* from *Germany*, where it grows naturally, and has been many Years preserved in some of the *English* Gardens; but the Red Sort grows naturally in the Corn Fields near the River *Medway* in *Kent*; from whence of late Years, there hath been great Quantities of the Plants in Flower brought to *London*, and sold about the Streets, by the Name of Red Morocco. These flower the Beginning of *June*.

Doctor *Linnæus*, having joined these Two Species, gave the Title of *Adonis radice annua* to them, in the Catalogue of Mr. *Clifford*'s Garden, p. 231. But in his Catalogue of the Garden at *Upsal*, as also in his Enumeration of the Species of Plants, he has altered the Title to *Adonis floribus octopetalis, fructibus subcylindricis.*

These Two Sorts are annual, so their Seeds should be sown in Autumn, soon after they are ripe; for if they are sown in the Spring, the Plants seldom come up till the following Spring, and many Times fail; or if the Seeds are premitted to fall when ripe, if the Ground is not disturbed, the Plants will come up in the Spring, without any further Care: And when the Seeds happen to be buried in the Ground for a Year or Two, and are afterward turned up to the Surface again, the Plants will come up: So that in the Places where the Red Sort grows naturally, all those Fields which are sown with Wheat and Rye are generally full of this Plant, whereas those Fields which are sown with Grain in the Spring, have seldom any of it appear that Season.

The First Sort, with perennial Roots, is also propagated by Seeds, which should always be sown in Autumn; for when they are sown in the Spring, they seldom succeed, which has occasioned this Plant to be so scarce in the *English* Gardens as at present; most People having kept their Seeds out of the Ground till the Spring before they sowed them; and the Plants not coming up the same Year, they have given over the Hope of their growing, and turned up the Ground the following Winter; which if they had not disturbed some few Plants might probably have come up the following Spring.

PLATE XV.

AGRIMONIA, *Tourn. Inst. R. H.* 301. *Tab.* 155. *Lin. Gen. Plant.* 534. *Raii Meth.* 45. *Eupatorium*, *C. B. P.* 32.

AGRIMONIA, *or* EUPATORIUM *of the* Greeks.

THIS Genus of Plants is placed by Doctor *Tournefort* in the Ninth Section of his Sixth Class, intituled Herbs with a *Rose Flower, whose Cup changes to a dry Fruit.* Doctor *Linnæus* places it in the Second Division of his Ninth Class of Plants, intituled *Dodecandria Digynia*, i. e. Plants whose Flowers have Twelve Stamina, and Two Styles. Mr. *Ray* places it in his Tenth Class of Plants with perfect Flowers, which are succeeded by single naked Seeds.

The Characters of this Genus are exhibited in the *Gardeners Dictionary.*

The Species here represented is,

AGRIMONIA *odorata, Camer. Hort. Inst. R. H.* 301. Sweet-scented Agrimony. This is by *Caspar Bauhin* titled *Eupatorium odoratum. Pin.* 321. There is also another Species of sweet Agrimony mentioned by Doctor *Morison* in his History, by the Title of *Eupatorium odoratum santonense seu Blesense, Agrimoniæ mediæ modo odorato.* Vol. II. p. 614. and by Doctor *Tournefort* it is titled *Agrimonia Santonensis odorata. Inst. R. H.* 301. If this is a different Plant from that which is here represented, I have not had the good Fortune to meet with it as yet; for the Plants which I have raised from Seeds, which were sent me from the Royal Garden at *Paris*, and from other Gardens, have always proved to be the same with that here figured: And Doctor *Morison*, and those other Authors who have mentioned the Sort which grows near *Blois*, make no Difference in the Habit of the Two Plants, but only say the Sort here figured has a stronger and more agreeable Scent than that of *Blois*; therefore that is not sufficient to make a specific Difference between them. Doctor *Linnæus* has joined this Species, and also that with White Flowers, and the Oriental Agrimony of Doctor *Tournefort*, to the common Sort, making them only Varieties of the same Species. But there are Four distinct Species of them, which do never vary when raised from Seeds, as I have constantly found in sowing of the Seeds of each Sort for many Years; and the Plants so raised have always been the same with the Parent Plants. The Leaves of the Sort here figured are much longer, the Wings are also longer, and much narrower, and the Incisures on their Edges ending in sharper Points than those of the common *Agrimony*. The Flower-stems of this Sort do generally branch out on every Side, and the Flowers stand upon longer Footstalks; whereas the common Sort runs up with a single long Spike of Flowers, which grow pretty close to the Stalk, and are smaller than those of the sweet Agrimony; so that the Plants may be easily distinguished at a Distance; and when near, the Scent of this is much more agreeable than that of the common Sort. *a*, represents the Flower expanded, with its Five Leaves; which is encompassed by an Empalement consisting of one Leaf, deeply divided into Five acute Parts, upon which the Embryo sits, which afterward becomes a Seed, which is represented at *b*, with its Covering having a Burry-top; whereby it will fasten itself to the Cloaths of Persons, who pass close to the Plants when the Seeds are ripe.

This is the second Sort mentioned in the *Gardeners Dictionary.* The common *Agrimony* is well known by all the Herb-folks, so will need no Description; therefore I have omitted it here. It grows wild upon Banks near Woods and Hedges in most Parts of *England*, and is there gathered and brought to the Markets. The Difference between that, and the Plant here represented, is not so great, but that by the Figure any Person, who is unacquainted with Plants, may easily distinguish the common Agrimony from any other Plant which is found growing naturally in the Fields.

The Virtues of the common *Agrimony* have been fully set forth by all the Writers on the *Materia Medica.* The whole Plant has been recommended for Use. A distilled Water of the Leaves and Flowers of the Plant has been long established as a Shop Medicine; and a



ADHATODA, *Indica folio saligno, flore albo. Boerh. Ind. Plant. p. 2. 230.*

Publish'd according to the Act by P. Miller May 4th 1750.



Fig. 1. ADONIS *Hellebori radice, buphthalmi flore* H. L.
Fig. 2. ADONIS *sylvestris flore luteo, foliis longioribus* C. B. P. 178.

J. Jeffreys sculp.



AGRIMONIA *odorata Camer.*

Publish'd according to the Act by P. Miller May 1755. Jefferys sculp.

Eupatorium of the Greeks





Fig. 1. ALATERNUS. 1. Clus. Hisp. 56

Fig. 2. ALATERNUS seu Phylica foliis angustioribus & profundius serratis H. L.

Publish'd according to Act by P. Miller May 1758

J. Jeffreys sculp.

Staff tree



ALCEA *folio rotundo laciniato.* C. B. P. 316

Publish'd according to Act by P. Miller May [illegible]

T. Jefferys sculp.



Fig. 1 ALCHIMILLA *alpina pubescens minor* C.B.P. 327

Fig. 2 ALCHIMILLA *vulgaris* C.B.P. 319.

Syrup made of the Juice of the Plant, is by some greatly recommended in Diseases arising from the Weakness of the *Liver*. The Qualities ascribed to this Plant are; it warms, dries, cleanses, binds, and strengthens; it is also esteemed as a good vulnerary Herb.

The Sweet Agrimony makes a very pleasant Tea; and if a little of the *Round-leav'd Sorrel*, or of the common *Wood-sorrel*, is added to it, these will make a pleasant, wholsome Drink, for those who have a Thirst; as I can, from long Experience, myself certify.

This flowers in *June* and *July*, and the Seeds are ripe in *September*: The Roots are perennial, but the Leaves decay in Autumn.

PLATE XVI.

ALATERNUS, *Tourn. Inst. R. H.* 595. *Tab.* 366. *Raii Meth.* 154. *Clus. Hisp.* 56.

The STAFF-TREE.

THIS Genus is by Doctor *Tournefort* placed in his Twentieth Class of Trees and Shrubs, with a Flower of One Leaf, whose Pointal becomes a soft Fruit or Berry, inclosing hard Seeds. Mr. *Ray* places it in his Class of Trees and Shrubs bearing Berries inclosing several hard Seeds. Doctor *Linnæus* has joined this, the *Berry-bearing Alder*, the *Paliurus*, and *Zizi-phus*, to the *Rhamnus*, including them all in the same Genus. But if we allow the Fruit to be a characteristic Note of the *Genera*, these cannot, with any System, be joined together; nor indeed can it be well done by those who take their Distinctions from the Flowers only; for the *Rhamnus* is Male and Female in different Plants. The Berry-bearing Alder hath its Flowers divided into Five Parts, and each Berry contains Two Seeds. The *Paliurus* hath Three Styles in the Flower, and a compressed bordered dry Fruit. The *Ziziphus* hath Two Styles in the Flower, and the Fruit hath Two Cells. The *Alaternus* hath a trifid *Stigma*, and Three Seeds in each Berry; therefore it must be kept in a separate Genus from the other.

The Characters of this Genus are exhibited in the *Gardeners Dictionary*.

The Species here represented are,

Fig. 1. ALATERNUS I. *Clus. Hisp.* 56. The Staff-tree, or common Broad-leav'd Alaternus, commonly called by the Gardeners *Phillyrea*. *Caspar Bauhin* titles it *Phylica elatior, Pin.* 476. And *John Bauhin*, in his *History of Plants*, Vol. I. p. 542. calls it *Spina Bourgi Monspeliensium*.

There is another Species of this, with a smaller Leaf, which is described by *Clusius*, and the Two *Bauhins*; but this is not very common in the *English* Gardens at present; nor is the plain Green Sort, here figured, much cultivated in the Nurseries; for the Blotched-leav'd (or what is commonly termed) the Strip'd *Phillyrea*, is what the Gardeners do chiefly propagate; but the Sale for these Plants having greatly diminished within a few Years past, there are but few of these Plants in the Nurseries, in comparison to what was some Years past, when the great Use of them was to cover Walls and Buildings; for their Branches require to be supported, otherwise they are frequently broken down by Snow, and strong Winds; and are therefore not much esteemed for Plantations in open Exposures, as they generally grow very rude, and spread their Branches to a great Distance from their Stems.

Fig. 2. represents the ALATERNUS *seu Phylica foliis angustioribus serratis, H. L.* The Narrow-leav'd *Alaternus*, deeply saw'd on their Edges. This is the ALATERNUS *Monspeliaca foliis profundius incisis. H. R. Par.* There is a Variety of this Sort with Silver-striped Leaves, which is pretty much cultivated in the Nurseries near *London*, and is usually planted against Walls or Buildings, to cover them; but this is not so hardy as the plain Green leav'd, the Plants being frequently injured by severe Frost, where they are exposed to the North or East Winds.

The Second Sort here figured grows more erect than the First, and the Branches grow more compact; which being fuller garnished with Leaves, make a much better Appearance than the other; therefore may be admitted into the Plantations of ever-green Trees; tho' these are liable to have their Branches broken or displaced, by great Snows in Winter, especially when it falls in a Calm; for if there is much Wind stirring at the Time when the Snow falls, it will shake off the Snow, and prevent its lodging on the Branches in such Quantities as by its Weight to split off the Branches.

Some of the *Dutch* Gardeners preserve this Plant in their Greenhouses, for the *Tea-tree*; and do frequently sell the Plants as such to those who are ignorant, or who send to *Holland* for Tea Plants.

Both these Sorts grow naturally in *Spain*, *Italy*, and the South of *France*; and have been long Inhabitants of the *English* Gardens. They grow to the Height of Eighteen or Twenty Feet, and spread their Branches pretty wide on every Side; so that unless the lower Branches are pruned off, the Plants will be bushy from the Ground upward.

The Berries of this Second Sort are gathered in the South of *France*, and are sent to *England* by the Name of *French* or *Avignon Berries*, which afford an excellent Yellow Dye or Paint.

These Plants flower in *April*, and their Berries are ripe the Beginning of *September*. The Birds are so fond of these Berries, as to devour them as soon as they are ripe, if they are not gathered, or protected from them.

PLATE XVII.

ALCEA, *Tourn. Inst. R. H.* 97. *Tab.* 25. *Raii Meth.* 86. *Malva, Lin. Gen. Plant.* 751.

VERVAIN MALLOW.

THIS Genus of Plants is by Doctor *Tournefort* ranged in his Sixth Section of his First Class of Plants, intituled, *Herbs with a Bell-shaped Flower of One Leaf; from the Bottom whereof there arises a Twin that receives the Pointal, which changes to a Fruit consisting of many Cells.* Doctor *Linnæus* places it in his Sixteenth Class, intituled *Monodelphia*, from the Pointal and Stamina being joined in One Body. And Doctor *Van Royen* gives the Title of *Columniferæ* to this Class of Plants, because the Parts of Generation are joined in Form of a Column in the Center of the Flower.

The Distinction between *Alcea* and *Malva*, according to *Caspar Bauhin*, *Ray*, *Tournefort*, and most of the Botanists of the last Century, is in the Leaves of *Alcea*

being

being deeply cut and jagged, somewhat like those of the *Vervain*; and this hath occasioned the *English* Title of *Vervain Mallow*: But Doctor *Linnæus* has made the characteristic Note of *Alcea* that of the outer Empalement of the Flower being of One Leaf, cut into Six Parts; and that of the *Mallow* being of Three Leaves; so that, by his Distinction, the Plant here figured should be placed with the *Mallows*; and the *Hollyhock*, which *Tournefort* calls *Alcea Rosea*, remains under this Title of *Alcea* alone: But as these Plants have been long known in the Dispensaries by the Title of *Alcea*, I have chosen to continue it under that Genus.

The Characters of the Genus are exhibited in the *Gardeners Dictionary*.

The Species here figured is,

Alcea, *folio rotundo laciniato*. *C. B. P.* 318. The round Cut leav'd Vervain Mallow. This is by *Fabius Columna* titled *Malva montana sive Alcea rotundifolia laciniata. Par.* 1. p. 148. Doctor *Linnæus* calls it *Malva foliis radicalibus reniformibus incisis, caulinis quinquepartitis, pinnato-multifidis. Hort. Upsal.* 202.

This is the Third Species in the *Gardeners Dictionary*. *a*, represents the Flower expanded; *b*, shews an intire Fruit, inclosed by the inner Empalement of the Flower, which is permanent; *c*, a single Seed taken out of the Cover.

The *Alcea vulgaris major*, *C. B. P.* is the Species which is ordered to be used in Medicine; but that Sort is not very common to be met with in *England*; that which grows naturally near *London* is the *Alcea tenuifolia crispa. J. B.* which being the common Sort here, has been generally supposed to be the same with that which is stiled so in *Germany*, and has, by Mr. *Ray* and others, been taken for it; but that is a much larger Plant, and the Leaves are broader, and not divided near so much as our common Sort about *London*; so that although Mr. *Ray* mentions both Sorts, yet, by his Description of the Plants, it is doubtful if he had seen that of *Caspar Baubin*, because he does not mention the Particulars in which that differs from the curled Narrow-leav'd Sort; for that Plant grows near twice the Height, the Leaves twice as large, as are also the Flowers; and the Divisions of the Leaves are few, and the Segments broad; and the whole Plant is rougher than our common Sort. I have found that Species mentioned by *Caspar Baubin*, in *Warwickshire* and *Staffordshire*; but do not remember to have seen it growing naturally in any other County in *England*.

It is seldom used in Medicine; but the Virtues are generally supposed to be nearly the same as those of the common Mallow, but less emollient.

The Sort here figured seldom grows more than a Foot and an half high; the Stalks grow erect, and do not branch out much on their Sides; the Leaves are finely cut; and the Flowers are larger, and of a deeper Colour, than those of the common Sort: It grows naturally on the Mountains in *Italy*, and the South of *France*; and is only to be found in Gardens in *England*.

The *Alcea* flowers in *June* and *July*, and the Seeds are ripe in *September*: Their Roots will continue Two or Three Years upon dry Ground; but in moist Places they seldom continue longer than One Year; for their Roots shoot deep into the Ground, and if they meet with Moisture, they soon decay.

PLATE XVIII.

Alchemilla, *Tourn. Inst. R. H.* 508. *Tab.* 289. *Raii Meth.* 23. *Alchemilla. Lin. Gen. Plant.* 153.

Ladies Mantle.

This Genus of Plants is by Doctor *Tournefort* ranged in the Second Section of his Fifteenth Class, intituled *Herbs with stamineous Flowers, whose Pointal becomes a Seed inclosed in the Empalement*. Mr. *Ray* places it in his Fifth Class of *Plants with stamineous Flowers, having naked Seeds wrapped up in the Empalement*. And Doctor *Linnæus* places it in his Fourth Class of Plants, intituled *Tetrandria Monogynia*, i. e. Plants whose Flowers have Four Stamina, and One Germen.

The Flowers of this Genus have no Petals, but the Parts of Generation are surrounded by the Empalement, which, after the Seeds are formed, do closely surround them; so these Sorts of Plants are generally termed Plants with *Apetalous* Flowers; and by some they are called *Blink Flowers*.

The Characters of this Genus are exhibited in the *Gardeners Dictionary*.

The Species here represented are,

Fig. 1. Alchemilla *Alpina pubescens minor. H. R. Par. Inst. R. H.* 508. Smaller hoary Ladies Mantle of the *Alps*. This is the *Alchemilla minor hirsuta cinericea Italica. Barrel. Icon.* Doctor *Linnæus* has supposed this Plant to be only a Variety of the *Alpine Ladies Mantle* of *Sweden*; but it is undoubtedly a distinct Species. *a*, represents a single Flower, separated from the Cluster; *b*, shews the Four Stamina; *c*, the Empalement of the Flower,

Fig. 2. Alchemilla *vulgaris. C. B. P.* 219. *Tourn. Inst.* 538. *Clus. Hist.* 108. The common Ladies Mantle. *John Bauhin* calls it *Pes leonis, sive Alchemilla. Hist.* 2. *Lib.* 17. p. 598. Doctor *Linnæus*, in the Catalogue of Mr. *Clifford*'s Garden, titles it *Alchemilla foliis palmatis*; and in his *Flora Lapponica, Alchemilla foliis simplicibus*; but in his *Flora Sueicia* he calls it *Alchemilla foliis lobatis*.

In the North of *England* it is called *Bears-foot*: This Sort grows naturally on moist Meadows in many Parts of *England*, but especially in the Northern Counties. It flowers in *May* and *June*: The Roots are perennial, and spread very wide, when they are in a moist Soil: The Leaves grow upon slender Pedicles, arising from the Root: The Flower-stems rise about a Foot high; and are cloathed with Leaves of the same Shape with those below, but smaller, one coming out at every Joint of the Stalk: The Flowers are produced in Clusters at the Top, which are green; but the Summits are of a yellow Colour.

This Plant is esteemed as a good Vulnerary, being drying and binding: It is frequently prescribed in Wound Drinks. The Leaves of the Plant are chiefly used; and these are brought over from *Switzerland*, mix'd with their common vulnerary Herbs.

PLATE

PLATE XIX.

ALOE, *Tourn. Inst. R. H.* 366. *Tab.* 191. *Raii Method.* 117. *Boerh. Ind. Plant. Par.* 2. 128. *Lin. Gen. Plant.* 389.

ALOES.

THIS Genus of Plants is by Doctor *Tournefort* ranged in the Second Section of his Ninth Class, intituled, *Herbs with a Lily Flower of One Leaf, cut into Six Segments, whose Empalement turns to a Fruit, having Three Cells, which are filled with Seed.* Mr. *Ray* places it in his Twenty-third Class of Plants, which is intituled, *Herbs with Grass Leaves, bearing Flowers, and a three-cornered Seed-vessel.* Doctor *Linnæus* places it in his Sixth Class, titled, *Hexandria Monogynia*, i. e. Plants whose Flowers have Six Stamina, and One Germen. Doctor *Boerhaave* ranges it under his Class of Plants which arise from Seeds with a single Leaf.

Doctor *Linnæus* has divided the Plants, which have always been included in this Genus, into Two different Genera: To one he continues the Title of *Aloe*; and the other he calls *Agave.* Under the First he ranges all those whose Flowers are tubulous, and the Stamina are no longer than the Tube of the Flower: And those with a Funnel-shaped Flower, whose Stamina are stretched out beyond the Petals, he places under the Title *Agave*; so that the common great *Aloe*, and all those other Sorts, whose Center-leaves are closely folded over each other, and flower but once, come under this Genus.

The Characters of this Genus are exhibited in the *Gardeners Dictionary.*

The Species here represented is,

ALOE *Africana foliis planis latioribus, conjugatis, carinatis, flore rubro*, i. e. *African* Aloe with broad plain fleshy Leaves joined closely together, and a Red Flower, commonly called the broadest leav'd *Tongued Aloe.*

This Sort was raised from Seeds, which came from the *Cape of Good Hope* several Years ago; but I have not found it mentioned in any of the Catalogues of Plants yet printed. It is the Twenty-sixth Sort mention'd in the *Gardeners Dictionary*, and approaches near to the Twenty third and Twenty-fifth Sorts there mentioned; but the Leaves are much broader than either of them; and the Spots on the Leaves are very faint, and the Colour of the Leaves much paler; however, it is difficult to determine if it is a distinct Species from them, tho' there is great Probability of its being so; because I have twice raised the Plants from Seeds, which have always proved to be the same. Doctor *Linnæus*, in his Enumeration of the Species of Plants, supposes but Nine Sorts of Aloe, which are specifically distinct; so has joined Five or Six Plants as Varieties under the same specific Title, many of which are as different in their Habit as can possibly be imagined; some of them growing with tall Stems, which resemble Trees, while others are very humble Plants, rarely rising with Stems above Three or Four Inches high. The Leaves of some of the Sorts are very long, narrow, and greatly sawed on their Edges; others have broad thick succulent Leaves, with scarce any Serratures on their Edges. Some have Spines on both Sides their Leaves; others have no Spines; so that there can be no doubt of their being distinct Species; for all those Sorts which have produced Seeds in *England*, which have been sown, have constantly produced Plants nearly in Shape to their parent Plants, having only differed in the Size or Thickness of their Leaves; and never varied so much in their Form of Growth, as to render it difficult to know their parent Plants.

The Doctor has joined the *American Aloe*, from which the *Horse Aloes* is procured, with the *Succotrine Aloe*, making them only Varieties of the same Species; to which he has added Fifteen other Sorts, all differing greatly in Form, Size, and Make of their Leaves, as also in their Flowering; so that whoever considers these Plants with any Degree of Accuracy, must allow them to be so many Species.

The Two Sorts of *Aloe*, from whence the Shop *Aloes* is extracted, are, 1. *Aloe Succotrina, angustifolia, spinosa, flore purpureo. Com. Hort.* 1. p. 91. the narrow prickly-leav'd Aloe of *Zuccotra*, with a purple Flower. From this Plant the best Sort of *Aloes* is extracted; which is done by cutting off the Leaves near the Stem, and suspending them by Threads, with the Part which is cut downwards, placing an earthen Vessel under them, to receive the Juice as it falls from the Leaves, which is of a yellowish Colour when it drops out first; but as it dries and hardens, becomes much darker. This Juice which drops without Expression is the purest Kind of Aloes. After this they press the Leaves, and get out a great Quantity of Juice, which is generally mixed with the Pulp of the Plant, so produces a very coarse Sort of *Aloes*, which is known in the Shops by the Name of *Aloe Caballina.* This Sort is seldom used in Medicine, but is given to Horses; as is also that which is extracted from the other Sort of *Aloe*, called *Vulgaris* by *Caspar Bauhin.* This is a Native of the *West-Indies*, from whence the Aloes is brought, which is generally known in the Shops by the Title of *Barbadoes Aloes*, tho' it is common in most of the other Islands.

PLATE XX.

ALYSSON, *Tourn. Inst. R. H.* 216. *Raii Method. Plant.* 95. *Boerh. Ind. Alt.* 2. 3. *Alyssum*, *Lin. Gen. Plant.* 722.

MADWORT.

THIS Genus of Plants is by Doctor *Tournefort* ranged in the Fifth Section of his Fifth Class, intituled, *Herbs with a Flower in Form of a Cross, whose Pointal becomes a Fruit, divided into Two Parts by an intermediate Partition parallal to the Valves.* Mr. *Ray* places it in his Twentieth Class of Plants, which he titles, *Herbs with a Flower of Four Leaves, succeeded by Pods:* And Doctor *Boerhaave* places it in his Class, intituled, Herbs with a Flower of Four Leaves, succeeded by short Pods. Doctor *Linnæus* has altered the Name to *Alyssum*, and has placed it in his Fifteenth Class of Plants, intituled, *Tetradynamia siliculosa*, i. e. Plants whose Flowers have Six Stamina, Four long, and Two shorter, which are succeeded by short Pods. To this Genus the Doctor has joined the *Alyssoides*, and *Vesicaria*, of *Tournefort*; but as the Seed-vessels of both these are swelled like a Bladder blown, and those of *Alysson* are compressed, they should not be included in the same Genus.

The Characters of *Alysson* are exhibited in the *Gardeners Dictionary.*

The Species here represented are,

Fig. 1. ALYSSON *Creticum saxatile, foliis undulatis incanis. Tourn. Cor.* Candy Rock Madwort, with waved hoary Leaves. *a*, is one of the Flowers separated from the Panicle, which represents the Four Leaves placed in Form of a Cross; *b*, the Seed vessel, which is short and gibbose; *c*, the Seed taken out of the Vessel. This is titled by Doctor *Van Royen*, in the Prodromus to the *Leyden* Garden, *Alyssum caulibus frutescentibus paniculatis, foliis lanceolatis undulatis integris*, p. 331. i. e. Madwort with shrubby Stalks, Flowers growing in Panicles, and whole Spear-shaped Leaves, which are waved. Doctor *Linnæus* has continued the same Title to it in his Enumeration of the Species of Plants. This is the First Sort mentioned in the *Gardeners Dictionary.*

It was discovered by Doctor *Tournefort*, in the Island of *Candy*; from whence he sent the Seeds to the Royal

Garden at *Paris*, where it was cultivated first, and since has been distributed to most of the curious Gardens in *Europe*; and is preserved as an ornamental Plant for Gardens. It flowers in *April* and *May*, and ripens its Seeds in *June*. It is very hardy in respect to Cold, provided it is planted in a dry Soil; for in wet Land it is apt to rot in Winter; or if it is planted in rich Ground, it is apt to grow very rank in Summer; and being full of Sap, the Frost will sometimes destroy those Plants in Winter; but where they grow upon Walls, or a rubbishy Soil, they are rarely injured by Cold, and the Roots will continue many Years.

Fig. 2. ALYSSON *Alpinum, hirsutum luteum. Tourn. Inst. R. H.* 217. Yellow hairy Madwort of the *Alps*. *a*, represents the Flower with Four Leaves, placed in Form of a Cross; *b*, the Seed-vessel, which is divided into Two Cells by an intermediate Partition.

This Plant is by *Caspar Bauhin* titled, *Sedum Alpinum hirsutum luteum. Pin.* 284. i. e. Yellow hairy Housleek of the *Alps*; and by *Lobel* it is titled, *Sedum petræum montanum. Icon.* 381. Doctor *Linnæus* has separated this, and some other Species, from this Genus, and has placed them under that of *Draba*. The distinguishing Character of this Genus he makes to consist of the Flower having no Style; whereas those of *Alysson* have a very perfect one. In his *Flora Lapponica*, and his Enumeration of the Species of Plants, he calls this, *Draba scapo nudo simplici, foliis lanceolatis integerrimis. Flor. Lap.* 255. *Sp. Plant.* 624. This is the Third Species mentioned in the *Gardeners Dictionary*. It begins to flower early in *March*, and continues most Part of *April* in flower, if it is planted in a shady Situation. The Flower stem seldom rises more than Two Inches high; the Plant shoots out Heads on its Sides, somewhat like the *Housleek*; from whence I suppose the old Authors placed it with them. These Heads grow close to the Ground, and form a close Bunch of Heads, each of them putting out a Flower-stem in the Spring; so that when there are many of the Heads in One Bunch, the Number of Flower-stems being the same, it makes a pretty Appearance when the Flowers are open; whereas when the Heads are separated, being only single Flower-stems, they make no Shew at a Distance. It is a Native of the *Alps*, and has been long preserved in many curious Gardens, where, if it hath a shady Situation, the Seeds will ripen well; but as it propagates very fast by Off-sets, the Seeds are seldom regarded.

PLATE XXI.

AMARANTHOIDES, *Tourn. Inst. R. H.* 654. *Tab.* 420. *Raii Meth. Plant.* 25. *Amaranthoides, Boerh. Ind. Plant.* 2. 99. *Caraxeron, Vaill. Acad. Reg. Sc.* 1722. *Gomphrena, Lin. Gen. Plant.* 279.

GLOBE AMARANTHUS.

THIS Genus of Plants was constituted by Father *Plumier*; the Characters of it are exhibited by Doctor *Tournefort*, in the Appendix to his Institutions of Botany, p. 654. and, according to his System, should be placed in his Twelfth Class of Plants *with flosculous Flowers, whose Flowers are cut into equal Parts, each having a proper Empalement*. Mr. *Ray* places it in his Fifth Class of Plants *with stamineous Flowers, whose Seeds are inclosed by the Empalement*. Mr. *Vaillant* has placed this under his Class of Plants which he titled *Dipsacea*, which is a confused Jumble of Plants joined together, many of which have no Affinity. Doctor *Linnæus* places it in the Second Division of his Fifth Class of Plants, intituled *Pentandria Digynia*, i. e. Plants whose Flowers have Five Stamina, and Two Styles. The System of Botany which the Doctor has established, of classing the Plants by the Organs of Generation in their Flowers, reduces this Genus under the Class here mentioned, which joins it to many other Genera, which, by all former Methods, were separated to a great Distance; and the most natural Place for this Genus is with those Plants where *Tournefort* has classed it; as the Heads are composed of many flosculous Flowers, each of which is succeeded by a simple Seed.

The Characters of this Genus are exhibited in the *Gardeners Dictionary*.

The Species here exhibited are,

Fig. 1. AMARANTHOIDES *lychnidis folio, capitulis purpureis majoribus*. Globe Amaranthus, with a Leaf of Lychnis, and larger Purple Heads. *a*, shews the Two-leav'd Empalement, which is hollow like a Gutter, and closely embraces the Floret *b*, which is divided at the Top into many equal Parts, and afterwards succeeds the Seed *c*, so closely, as with Difficulty to be separated.

This is the First Species mentioned in the *Gardeners Dictionary*. By Doctor *Breynius* this Plant is titled, *Amarantho affinis, altera species, sive flore purpureo. Cent.* 1. 110. And by Doctor *Commelin*, in the *Amsterdam* Garden, it is titled, *Amarantho affinis, India Orientalis, floribus glomeratis, Ocymoides folio.* p. 1. 85. In *England* it is commonly called *Globe Amaranthus*, or Eternal Flower; and by the *French*, *Immortal*, because the Flowers will continue their Beauty a long time, if they are gathered in Maturity, and preserved in a dry Place.

Doctor *Linnæus* has changed the Name of this Genus to *Gomphrena*, and titles this Species, *Gomphrena caule erecto, foliis ovato-lanceolatis, capitulis solitariis, pedunculis diphyllis. Hort. Cliff.* 86. *Spec. Plant.* 224.

The Plant here represented is a Native in *India*, from whence the Seeds were brought to *Holland*, about the Year 1670, where the Plants were raised in some curious Gardens, and the Seeds were distributed to most of the curious Gardens from thence; but this Plant was not common in the *English* Gardens till the Year 1725; but is now become one of the great Ornaments of the Gardens in Autumn.

There is a Variety of this Plant, which is common in some of the *American Islands*, and is by many supposed to be the same with this; but all those Plants which have been raised in the *English* Gardens from the Seeds, which were brought from *America*, have smaller and flatter Heads; the Plants branch out more, and do not grow so upright as those from *India*; the Flowers come much later in the Year, so that their Seeds seldom come to Maturity in *England*; therefore I have added the Epithet of *capitulis majoribus* to this Plant, to distinguish it from the *American*, which never produces Heads more than half the Size of this, in the Places where it naturally grows.

Fig. 2. AMARANTHOIDES *lychnidis folio, capitulis argenteis majoribus. Tourn. Inst. R. H.* 654. Globe Amaranthus, with a Lychnis Leaf, and larger Silver Heads. This Sort is figured by Doctor *Breynius*, in his First Century of Plants, p. 109. Icon. 51. And in the next Plate he gives the Figure of another Species, which he titles, *Amarantho affinis Brasiliana, glomeratis parvisque flosculis. Icon.* 52. The Seeds of this Species I have several times received from *America*, and have constantly observed the same Difference between the Flowers and Plants of this, and those with Silver Heads from *India*, which is here figured, as there is in those with the Purple Heads before mentioned; so that if the Difference between them is not sufficient to constitute them different Species, they are Varieties which constantly continue the same from Seeds; therefore those which come from *America* are not worth cultivating in *England*, as their Flowers are not near so large or beautiful as those from *India*, nor do the Plants produce half the Number of Heads.

Doctor *Linnæus* makes them but One Species, that with Silver, and the other with Purple Heads. Indeed, the Colour is not sufficient to make them different Species, tho' they never vary from their Colour, but always continue the same as the parent Plants from which their Seeds are taken.

This



ALOE. *Africana, foliis planis latioribus, conjugatis, carinatis flore rubro.*

aloe african





Fig. 1 ALYSSON Creticum [illegible] foliis undulatis incanis Tourn. Cor. 15

Fig. 2 ALYSSON [illegible] hirsutum luteum Tourn. Inst. 217

Pl. XXI



AMARANTHOIDES [illegible]

AMARANTHOIDES [illegible]





AMARYLLIS *spatha multiflora corollis campanulatis inaequalibus genitalibus declinatis.*

Daffodil lily



AMARYLLIS, [illegible]

Lily [illegible]

This Sort is less common in the *English* Gardens than that with the purple Heads. I received the Seeds of this Sort from *Holland*, in the Year 1722, since which time it has been preserved in several curious Gardens; but that with purple Heads, making a finer Appearance, is by most Persons preferred to the White; tho' some of the White being intermixed with them, adds to the Variety. They are both very ornamental Plants in a Garden; they begin to shew their Flowers early in *June*, provided the Seeds are sown in *March*; and if the Plants are brought forward, by being removed into Two Hot-beds, they will be in full Beauty by the Beginning of *July*, and continue till the End of *September*, or the Beginning of *October*; when the Seeds will be ripe, which should then be cut off, and the Seeds preserved in the Heads till the Season for sowing them; but they should be kept in a dry, warm Room, otherwise the Seeds will not grow.

The usual Height to which these Plants grow is about Two Feet and an half; and, when they are not too much drawn in the Hot-beds, they will form themselves into regular handsome Plants.

PLATE XXII.

AMARANTHUS, *Tourn. Inst. R. H.* 234. *Tab.* 118. *Raii Method. Plant.* 25. *Lin. Gen. Plant.* 941.

AMARANTHUS, *or* FLOWER GENTLE.

THIS Genus of Plants is by Dr. *Tournefort* ranged in his Sixth Class, which is titled, *Herbs with a Rose flower, whose Pointal becomes a Seed-vessel, having One Cell, which opens transversly in Two Parts.* Mr. *Ray* places it in his Fifth Class of Plants with *apetalous Flowers, whose Empalement incloses the Seeds.* Doctor *Linnæus* removes this Genus to a great Distance from those of its Congeners, placing it in his Twenty-first Class of Plants, intituled, *Monœcia Pentandria*, from there being Male and Female Flowers in the same Spikes, and the Male Flowers having Five Stamina: But this is not regular in all the Species, for some have Three, and the others Five Stamina; and this often occurs in the same Plant. The *Amaranthus Cristatus*, commonly called *Cockscomb Amaranthus*, is placed by Doctor *Linnæus* in his Fifth Class of Plants, as these have hermaphrodite Flowers only; so that these Plants, which, by most of the Writers on Botany, have been included in the same Genus, are now removed to a great Distance from each other. The Title which the Doctor has given to that Genus is *Celosia*.

The Species here represented is,

AMARANTHUS, *racemis cylindricis lateralibus cruciatim positis*, i. e. Amaranthus with cylindrical Spikes, produced from the Wings of the Leaves, in Form of a Cross. *a*, represents a Flower; *b*, the Seed.

The Seeds of this Plant were sent from the *Bahama Islands*; but it is not certain whether it is a Native of those Islands, or has been brought thither from some other Country; however, it is now in so great Plenty there, as to be eaten by the Inhabitants as a boiled Sallad; and, so far as I can learn, it is cultivated in their Gardens; tho' in those warm Countries, where the Seeds ripen well, these Plants will soon overspread the Ground, where their Seeds are permitted to scatter, and become very troublesome Weeds.

This Plant will grow to the Height of Three Feet, and produces many Spikes of a bright Purple Colour, which come out from the Wings or Footstalks of the Leaves, crossing each other all the Length of the Plant, standing almost horizontal; in which Particular it differs from all the other Species of this Genus; for some of them have upright, and others pendulous Spikes; some of which are so long as to trail upon the Ground, tho' they are produced from the Top of Plants which are generally upward of Two Feet high: These Spikes are commonly but slender, which are stretched out to such Lengths.

The Spikes of the Plant here represented are not so regularly cylindrical as are those of the other Species, but have several Swellings in different Parts, which, together with the Manner in which they are produced, do sufficiently distinguish it from all the other Species of this Genus.

This Plant must be raised on an Hot-bed in the Spring, otherwise it will not perfect Seeds in *England*; but they should not be too much drawn by the Glasses, for that will cause them to run up weak, and then they never make so good an Appearance, as when they are brought up more hardily. In *June* they may be planted into the open Borders; or if they are designed for Pots, to place among other annual Plants in Courts, they should be potted, and shaded from the Sun until they have taken Root; after which time they may be removed into the open Air, and placed where they are designed to remain. The same Culture which the Cockscomb usually has will agree with this, only it may be treated more hardily.

It is in Beauty from the Middle of *June* till the Frost in Autumn puts an End to it. The Seeds will ripen toward the End of *September*, when they should be taken before the Frost injures them.

Most of the Species of *Amaranthus* are in all the hot Countries used as culinary Plants: The Seeds of several of them have been sent to *England*, with Advice to propagate them for the same Purpose here; but as *Spinach*, and some other esculent Plants, are cultivated with greater Ease, and also much preferable to the others; there are few Persons so fond of those Novelties, as to prefer them to those which are commonly brought to the *London* Markets: Indeed, in those Countries where other esculent Plants are scarce, these may be esteemed; but where *Spinach*, *Cabbage*, and many other esculent Plants will thrive, there is not One Species of this Genus which is worthy of being propagated.

PLATE XXIII.

AMARYLLIS, *Lin. Gen. Plant.* 367. *Lilio-Narcissus*, *Tourn. R. H.* 385. *Tab.* 207. *Raii Method. Plant.* 120.

LILY DAFFODIL.

THIS Genus of Plants is by Doctor *Linnæus* placed in his Sixth Class of Plants, and in the First Section of the Class, intituled, *Hexandria Monogynia*, i. e. Plants whose Flowers have Six Stamina, and One Style. Doctor *Tournefort* places it in the Fifth Section of his Ninth Class, intituled, Plants with a Lily Flower, composed of Six Leaves, whose Empalement becomes a Fruit. Mr. *Ray* places it in his Twenty-third Class, which he titles, Herbs with grassy Leaves, bearing Flowers which have a tricapsular Seed-vessel.

By some of the old Writers on Botany, who have mentioned any of the Species of this Genus they are called either *Lilies*, or *Narcissus*, as their Flowers have some Affinity to both these Genera. This induced Dr. *Tournefort* to make a new Genus of them; and as they approached near to the *Lily* in some Species, and in others to the *Narcissus*, he compounded the Two Names of *Lily* and *Narcissus* to *Lilio-Narcissus*; but Doctor *Linnæus*, having rejected these compound Titles, has altered it to *Amaryllis*, which is an ancient Name of a Plant.

The Species here represented are,

AMARYLLIS *spatha multiflora, corollis campanulatis æqualibus, genitalibus declinatis*, i. e. Amaryllis with many Flowers included in the same Cover, whose Flowers are equal, and Bell-shaped, having the Parts of Generation declined; commonly known in *England* be

the Name of *Belladonna Lily*. This is the Fifth Species mentioned in the *Gardeners Dictionary*. *a a*, represents the Spatha, or Cover, which includes the Flower-buds, and opens in Two Parts when the Flowers are near expanding. *b*, shews the Stamina with the Style, which decline toward the lower Part of the Flower, but turn upward; so that the Summits and the Style approach nearly together. *c*, shews the bulbous Root, with the Leaves, which do not appear till the Spring.

This Plant is by Sir *Hans Sloane* intituled, *Lilio-Narcissus polyanthus, flore incarnato, fundo ex luteo-albescente. Cat. Jam.* 115. Doctor *Tournefort* supposed this was the same Plant which Professor *Herman* has figured in the *Paradisus Batavus*, under the Title of *Lilium Americanum puniceo flore, Belladonna dictum*, and the *Red Lily* of *Du Tertre*; but he was mistaken. The next Plate represents Professor *Herman*'s Plant; and the Red Lily of *Du Tertre* is a Third Species, different from both these.

The Title of *Belladonna* has been applied in different Countries to this Plant, and also to that mentioned by Sir *Hans Sloane*; which may have occasioned the Mistake made by Doctor *Tournefort*; the Plant which is figured in this Plate being so called in *Portugal* and *Italy*; whereas the other Sort was sent from *America* to *Holland*, by the same Name: But whoever attends to the Description of *Herman*'s Plant, can have no doubt of its being the same which is exhibited in the next Plate.

This Plant, which is here represented, is said to be gathered by Sir *Hans Sloane*, in the Island of *Barbadoes*; and his Description seems to be well enough adapted to t[illegible]; but from all the Intelligence I have been able to procure from the Inhabitants of the several *American* Islands, they have but Two Species of what they [illegible] Lilies; One *White*, which is a *Pancratium*; and the other *Red*, which is what I have before mentioned, and is a very different Species from this. The Plant here figured was brought to *England* from *Portugal*, about the Year 1712, by a Gentleman who had long resided in that Country, who informed me that the Roots were brought from *India* into that Country, and were propagated by some curious Persons in their Gardens near *Lisbon*; but whether from the Want of Care to propagate them, or by their sending them from thence to other Countries, is not easy to determine, but there is a Scarcity of these Flowers now in *Portugal*, where the *Jacobæa Lily* is at present in greater Plenty.

This Sort usually flowers about the End of *September*, or the Beginning of *October*, in *England*; and, if the Roots are strong, the Stem will rise upward of Two Feet high, being naked, and of a Purple Colour, having Five, Six, or Seven Flowers at the Top, which are in Shape like the common *Red Lily*, and near as large, but of a soft purple Colour, inclining to white withinside toward the Bottom, having an agreeable Scent. If the Season is favourable, or the Flowers are screened from Frost, which sometimes happens at that Time of the Year, as also from violent Winds, or heavy Rains, they will continue in Beauty a Month, or longer; and are very ornamental Plants to a Garden, at a Season when there is a great Scarcity of Flowers; therefore they are worthy of being propagated by all those whose Delight is in Flowers.

As, these Flowers appear so late in Autumn, they never produce any Seeds in *England*; therefore they can only be propagated by Off-sets here, which is but a slow Method of increasing their Roots; for they are too tender to live in open Borders in this Country; therefore whoever proposes to have these Flowers multiply with them, should plant them in a warm Border, near a South Wall, putting the Roots Six or Eight Inches deep in the Ground; and before the severe Frost sets in, the Borders must be covered Four or Five Inches thick with rotten Tanners-bark, to prevent the Frost from penetrating the Ground: With this Management the Roots will thrive, and in the Spring they will put out strong Leaves, which will remain flourishing till the End of *June*, when they will begin to decay; and soon after they may be transplanted: But they should not be removed oftener than every third Year, if they are expected to produce strong Flowers; nor should they be planted in a moist Soil, for in such their Bulbs will rot in Winter.

There is another Species of this Genus, which approaches near to this here figured, but differs in having a much paler Flower; and the Flowers are produced in the Spring, whereas this always flowers in Autumn. The Sort here mentioned was brought from the *Cape of Good Hope*, in the Year 1754, to *Holland*. Some of these Bulbs were sent me by Doctor *David Van Royen*, the present Professor of Botany at *Leyden*, which have produced their Flowers in the *Chelsea* Garden; and are in Shape so like that here figured (as are also the Leaves of the Plant), as not to be distinguished therefrom, but by the Colour, and the Time of its flowering.

The Sort here figured is by the *Italians* called *Narcissus Belladonna*, and is cultivated in great Plenty in the Gardens about *Florence*; so that in the Autumn Season it is one of the greatest Ornaments of their Gardens. The Flowers are brought to Market there, and are used to adorn their Houses and Churches; for at that Season there is a Scarcity of other Flowers.

PLATE XXIV.

AMARYLLIS *spatha multiflora, corollis campanulatis æqualibus, marginibus undulatis*, i. e. Amaryllis with many Flowers inclosed in the same *Spatha*, or Cover, whose Petals are equal, shaped like a Bell, and their Borders waved. This is commonly known in *England* by the Title of *Mexican Lily*. It is figured by *Herman* in the *Paradisus Batavus*; and is there titled, *Lilium Americanum puniceo flore, Belladonna dictum*, p. 194. This Title of *Belladonna* might probably lead Doctor *Tournefort* into the Mistake of supposing it to be the same with that Species which is mentioned by Sir *Hans Sloane* in his Catalogue of *American* Plants; but if he had attended to the Description which Doctor *Herman* has given of his Plant, he would have found it to be very different from the *Belladonna Lily* before described. *a, a*, represents the *Spatha*, or Cover, which surrounds the Flower-buds, and divides into Two Parts, when the Buds are near opening. *b*, shews the Stamina, or Male Organs, which are situated round the Style *c*; and all of them are declined toward the lower Part of the Flower.

THIS Plant has been more than Thirty Years in *England*; but from whence it was brought is not certain. It flowered in Mr. *Fairchild*'s Garden at *Hoxton* in 1728, when the late Doctor *James Douglass* caused a Figure of it to be drawn, and wrote a Folio Pamphlet on it. He gave it the Title of *Lilium Reginæ*, because it was in full Beauty on the First of *March*, which was the late Queen's Birth-day. Mr. *Fairchild* told me the Roots were brought from *Mexico*; so he gave it the Name of *Mexican Lily*, which is still continued to it by the *English* Gardeners.

Doctor *Herman* says it came from the *Caribbee Islands*; but all the Roots which I have received from those Islands, by the Title of *Red Lily*, are of a different Sort from this.

It flowers constantly in the Spring, when it is placed in a very warm Stove. It is in Beauty in *February*; and those which are in a moderate Temperature of Air will flower in *March* or *April*. The Stems of these Flowers seldom rise much more than a Foot high; and each Stem produces Two, Three, or Four Flowers, rarely more than that Number. It is much tenderer than the former Sort, therefore will not thrive in this Country, unless it is preserved in a warm Stove in Winter. It propagates by Off-sets, but never produces Seeds in this Country.

PLATE

PLATE XXV.

AMMI, *Tourn. Inst. R. H.* 304. *C. B. P.* 159. *Raii Method.* 52. *Lin. Gen. Plant.* 297.

BISHOPSWEED.

THIS Genus of Plants is by Doctor *Tournefort* ranged in the First Section of his Seventh Class of Plants, intitled, *Herbs with umbellated Flowers ranged circularly, whose Empalement turns to Two small channelled Seeds.* Mr. *Ray* places it in the Eleventh Section of his Eleventh Class of Plants, which he stiles, *Herbs with umbellated Flowers, which are succeeded by short thick striated Seeds.* Doctor *Linnæus* places it in his Fifth Class of Plants, intitled, *Pentandria Digynia,* i. e. Plants whose Flowers have Five Stamina, and Two Styles.

The Species here represented is,

AMMI *majus, C. B. P.* 159. Common Broad-leav'd Bishopsweed. This is by *John Baubin* titled, *Ammi vulgare majus, latioribus foliis, semine minus odorato, Hist. Plant.* Vol. III. p. 2. 27. By *Dodonæus* it is called, *Ammi vulgare, Pempt.* 301. Doctor *Linnæus* titles it, *Ammi foliis inferioribus pinnatis lanceolatis serratis superioribus multifidis linearibus, Hort. Upsal.* 59. *Spec. Plant.* 242. i. e. Bishopsweed, whose lower Leaves are winged, Spear-shaped, and sawed on the Edges, and the upper Leaves divided into many narrow Segments. *a,* shews the under Leaves, which are broad, and sawed on their Edges; *b,* the upper Leaves, which are divided into many narrow Segments; *c,* represents the Flowers growing in an Umbel; *d,* the Seeds which succeed the Flowers.

There is a Variety of this Plant, which is mentioned in several Botanic Books, under the Title of *Ammi majus foliis plurimum incisis & nonnibil crispis, C. B. Pin.* 159. i. e. Greater Bishopsweed with Leaves finely cut and curled. But this is only a seminal Variation, for from the Seeds of one Plant there will arise Plants of various Forms, some with very broad Leaves, others with very finely divided Leaves, and some of a middling Sort between both. I have frequently taken the Seeds of each Variety, and sown them in different Places with great Care; and have always found, that from each Parcel there have been Plants of all the different Varieties produced; so that they must not be taken for distinct Species, notwithstanding their different Appearances; tho' *Fuchsius, Camerarius,* and some others, have supposed them distinct Plants. Mr. *Ray* observed both these Varieties growing promiscuously in the Vineyards and cultivated Fields in *Italy* and *France,* where this Plant naturally grows, so makes no doubt of its being a seminal Variation. *Parkinson* has supposed this Plant to be a Native of *England*; and says it was found wild about *Greenbithe* in *Kent.* But it must have certainly arisen from some Seeds accidently scattered there, or thrown out of some Garden; because it has not been found in that Place since his Time, nor in any other Part of *England,* growing naturally: Tho' when once the Seeds are sown in a Garden, and the Plants are permitted to shed their Seeds in the Place, there will be a Supply of Plants annually produced, as long as any of the Seeds remain in the Ground.

This Plant is annual; and, if the Seeds are sown in Autumn, the Plants will flower by the Beginning of *July,* and the Seeds will ripen the Beginning of *September,* or sooner, in a warm Season. When the Seeds are sown in the Spring, they often remain in the Ground till Autumn, and sometimes till the following Spring, before the Plants appear; nor will those Spring-sown Plants, which come up the First Year, be near so strong as those sown in Autumn; which in good Ground generally grow near Three Feet high; and perish soon after their Seeds are perfected.

The Seed of this Plant is the only Part which is used in Medicine; it is employed in carminative Decoctions; and is esteemed a good Aromatic, being attenuating and diuretic.

There was formerly another Sort, whose Seeds were brought from the *Levant,* by the Title of *Ammi verum,* and *Ammi Creticum:* But of late Years there has been none of these Seeds imported; but the Seeds of the common Sort have been used to supply its Place.

PLATE XXVI.

AMOMUM, *Lin. Gen. Plant.* 2. *Flor. Leyd. Prod.* 12. *Zinziber, C. B. Pin.* 35. *Raii Method. Plant.* 121.

ZERUMBET, *or* ZERUMBETH.

THIS Genus of Plants is by Doctor *Linnæus* placed in his First Class, intitled, *Monandria Monogynia,* the Flower having but One Stamen, and One Style. Mr. *Ray* places it in his Twenty-third Class of Plants, which he titles *Graminifoliæ floriferæ bulbosis affinis,* i. e. Plants with Grass like Leaves bearing Flowers.

The Characters of this Genus are,

The Flowers are produced in a compact scaly Head, each having a Spatha, or Leafy Cover: The Flower is of One Leaf, having a short Tube, and is divided into Three Parts at the Top, the middle Segment being larger than the other. In the Center is One Stamen, shaped like a Leaf, which arises by the Style, and is of the same Length, resting upon the Germen; which afterward becomes an oval Fruit, divided into Three Cells, which contains many Seeds.

The Species here represented is,

AMOMUM *scapo nudo, spica oblonga obtusa, Hort. Cliff.* 3. *Hort. Upsal.* 1. *Flor. Zeyl.* 2. *Flor. Leyd. Prod.* 12. Zerumbet, or Zerumbeth; by some called Broad-leav'd Wild Zinger.

Doctor *Tournefort* hath not mentioned any of the Species of *Ginger* in his Institutions of Botany; nor have we any good Description of the *Zerumbeth Galingale* and *Zedoary,* by which they may be distinguished. The only Author who has well described the Plant here figured, is Doctor *Herman,* who says it is the *Zerumbet* of the Shops; but does not distinguish it sufficiently from the *Galingale,*

Galingale, or *Zedoary*. The Writers on the *Materia Medica* have only described the dried Roots, as they have been imported, being ignorant of the Plants whose Roots they were; and, it is but of late Years that we have had the Plants in the *English* Gardens, therefore could not determine what they were.

The Roots which I have seen sold in the Shops for the lesser *Galingale*, were those of the Plant which Doctor *Linnæus* has titled *Kæmpferia*; and is figured by Doctor *Kempfer*, who calls it *Wanbom*. It is also figured and described in the *Hortus Malabaricus*, under the Title of *Ketsjula Kelengu*.

The *Zedoary* approaches near to the Plant here figured; but the Leaves are much broader, and grow near twice the Height of those of *Zerumbeth*, and are placed on every Side the Stalk; whereas those of *Zerumbeth* are only on Two Sides, so appear flat, when compared with the other; and the Roots are much larger. How this differs in its Flowers I cannot say, as I have not seen this Species in Flower; but the *Zerumbeth* flowers annually in *England*, when it is kept constantly in the Tanners-bark; for if the Pots in which the Plants are planted be placed on Shelves in the Hot-house, the extreme Fibres of the Roots will become dry, and then the Plants will not thrive after.

The generical Name of this and the common *Ginger*, was *Zinziber*, by which most Authors who have mentioned these Plants have called them: But Doctor *Linnæus* has altered their Title to *Amomum*; and has added to them the *Cardamum* and *Grains of Paradise*; making them Species of that Genus.

Doctor *Herman*, in the *Hortus Lugduno Batavus*, calls the Plant here figured *Zinziber sylvestre latifolium*; and in *Garcias* it is titled *Zerumbeth*. It is a Native of *India*, from whence the Roots are brought for Use.

a, represents the Root, as it spreads in the Ground; *b*, the naked Flower-stem, which arises immediately from the Root; *c*, the obtuse Spike; *d*, the Flower coming out of the scaly Head; *e*, the Foot-stalk of the Leaf, coming from the Root, which decays in Autumn; at which Time the Roots should be taken up for Use, as they are at that Time in the greatest Strength.

The Root of this Plant is the only Part which is used in Medicine; it is heating, drying, and is esteemed good to expel Wind; comforting the Bowels; and is frequently ordered for Cholics, and other Disorders of the Bowels, as also to prevent Vomitings.

The *Zerumbeth*, *Zedoaria*, and lesser *Galingale*, are now pretty common in many curious Gardens in *Europe*, where there are Hot-houses with Beds of Tanners-bark; for, unless the Pots in which their Roots are planted be constantly kept in the Tan-bed, the Roots are apt to shrink; and when that happens, they frequently rot; for, by giving the Plants much Wet, they are soon destroyed, especially after they have been kept dry any Time; which is also the Case of the common *Ginger*.

The Roots of the lesser *Galingale* were obtained from *India* in the Year 1724, by *Charles Duboise*, Esq; of *Mitcham* in *Surry*, who communicated them to several curious Persons in *England*; and they have since been sent to many curious Persons in *Holland*, *France*, and *Germany*. The *Zerumbeth* and *Zedoary* were brought to *England* about the Year 1738, from *Holland*: And these multiply so fast, where they are properly managed, that many of their Roots are annually thrown away.

The common *Ginger*, which grows naturally in the *West-Indies*, has been long in the *English* Gardens; but neither of these Sorts made any Progress here, until the Use of Tanners-bark in Hot-houses was introduced; since which they all thrive as well as if they were in their natural Countries; and large Quantities of the Root of *Ginger* have been taken up for Preserving in *England*.

PLATE XXVII.

AMORPHA, *Lin. Gen. Plant.* 768.

BASTARD INDIGO.

The Characters of this Genus are,

The Empalement of the Flower is tubulous, cylindrical, and is of One Leaf, which is divided at the Top into Five Parts, which are erect: The Flower is papilionaceous; but differs from all the Genera of this Class, having only a broad Standard, which stands above the Anthera; so that the Wings and Keel are wanting to the Flower: The Stamina coalesce slightly at the Bottom; but are separated above the Empalement, and are of unequal Lengths: These support short swelling Summits, which are channelled: The Pointal stands above the Summits, supporting a single Stigma: The Pointal afterward becomes a short Pod, inclosed in the Calyx, opening in One Cell, in which is One or Two Kidney-shaped Seeds.

THIS Plant has been placed with the *Barba Jovis*, to which Genus it is nearly allied; but the Flowers wanting the Keel and Wings, and the Pod being compressed, are sufficient to distinguish it from the other Plants of that Genus; which occasioned Doctor *Linnæus* to separate it, and to constitute a new Genus of it, by the Title of *Amorpha*.

In the Catalogue of Trees and Shrubs, which was published by a Society of Gardeners, it is there mentioned by the following Title, viz. *Barba Jovis Americana Pseudoacaciæ foliis flosculis purpureis minimis*; and in the *Philosophical Transactions* of the Royal Society it is called, *Barba Jovis Caroliniana, Pseudoacaciæ foliis*, Bastard Indigo, *incolis*, Nº 407.

There is but One Species of this Genus at present known, which is that here exhibited; therefore it hath no specific Title; but is in the Catalogue of Mr. *Clifford*'s Garden called, *Amorpha*, p. 553. Tab. 19. in the Catalogue of the *Upsal* Garden, p. 208. and in the Prodromus to the *Leyden* Garden, p. 393. This is the Third Species of *Barba Jovis* in the *Gardeners Dictionary*.

a, represents the Corolla of the Flower, which consists in One broad obtuse Standard; *b*, the Ten Stamina, with their Summits, which are of unequal Lengths; *c*, shews the Style, with the Stigma standing above the Stamina; *d*, the short compressed Pod.

The Seeds of this Plant were sent from *Carolina* by Mr. *Catesby*, in the Year 1724, which were sown in many Gardens; and Numbers of the Plants were raised from them, some of which produced their Flowers in a few Years after; and now they are pretty common in most of the Nursery-gardens about *London*, being propagated and sold as a flowering Shrub, with many other Sorts.

It will grow to the Height of Eight or Ten Feet; but generally produces many Branches near the Root, which are

Pl. XXV.



AMMI *majus* C.B. P. 159.

Published according to the Act by J. Hiller, July 20 1755.

J. Jefferys sculp.

Bishop's weed



AMOMUM *scapo nudo, spica oblonga obtusa. Hort. Cliff.*

Zerumbeth



AMORPHA *Lin. Gen. pl. 768.*

Indigo



Fig. 1. AMYGDALUS sativa fructu majori C.B.P. 441.

Fig. 2. AMYGDALUS Indica nana H.A. Ovr.

Almond Tree



ANCHUSA *strigosa, foliis linearibus dentatis, pedicellis bractea minoribus, calycibus fructiferis inflatis*
Lafl. Lin. Sp. plant. 183

Publish'd according to the Act by P. Miller July 29 17..

J. Jefferys sculp



Fig. 1. ANDROSACE *vulgaris latifolia annua Inst. R. H. 123*
Fig. 2 ANDROSACE *foliis lanceolatis dentatis glabris perianthiis angulatis corolla brevioribus. Lin. Flor. Suec. 160.*

Publish'd according to the Act by P. Miller [illegible]
T. Jefferys sculp

are placed irregularly; so that it will not make a good Appearance, when it is placed single; but if planted among other Shrubs, so as that the Stems are hid from Sight, the Tops of the Branches, when in Flower, make a pretty Variety; but as it is late in the Spring before the Shoots come out, the Shrubs have the Appearance of being dead till the End of *April*, or the Beginning of *May*; but when they begin to put out new Shoots, they soon grow to a considerable Length, and are furnished with long winged Leaves, shaped like those of the *Common Acacia*, but of a darker Green: The Flowers are produced in Spikes, at the Extremity of the Shoots, being generally Three or Four together: These Spikes are Six or Eight Inches long, and fully garnished with Flowers, which are commonly in Beauty about the latter End of *June*; but the Seeds seldom ripen in *England*.

In *North America* they have made a coarse Sort of *Indigo* from the Leaves of this Shrub, which occasioned their calling it Bastard Indigo; but since the true Indigo Plant has been there cultivated, the Inhabitants have made no Use of this.

PLATE XXVIII.

AMYGDALUS, *Tourn. Inst. R. H.* 627. *Raii Meth.* 149. *Lin. Gen. Plant.* 545.

ALMOND-TREE.

THIS Genus of Plants is by Doctor *Tournefort* ranged in the Seventh Section of his Twenty-first Class, intitled, *Trees and Shrubs with a Rose Flower, whose Pointal turns to a stony Fruit.* Mr. *Ray* places it amongst the Trees whose Flowers join to the Base of the Fruit, and grow single. Doctor *Linnæus* places it in his Twelfth Class of Plants, intitled, *Icosandria Monogynia*, from the Flowers having Twenty Stamina, and a single Pointal; and he joins the *Persica* to this Genus, making it only a specific Difference: But where the Fruit is admitted as a Character to the Genus, it must be separated, the outer Cover of the *Almond* being dry, hard, and compressed; whereas the *Peach* is rounder, the Flesh thick and moist, and the Stone very rough.

The Species here represented are,

Fig. 1. AMYGDALUS *sativa fructu majori, C. B. P.* The manured Almond with a larger Fruit. *a*, represents the Flower expanded; *b*, the Stone divested of its outer Cover; *c*, an intire Fruit with its Cover.

In most of the Botanic Books there is a Distinction made between the Sweet and Bitter Almond: But these are only accidental Varieties; for it frequently happens that the Two Sorts are found growing upon the same Tree; tho' in general, those Trees whose Fruit have sweet Kernels, are, for the most Part, so; but the Sweet, or that which is usually sold for the *Jordan Almond*, is from a different Tree; the Flowers are White, and smaller than those of the common *Almond*; the Branches of the Tree are much slenderer, and the Leaves long and narrow. This Sort is distinguished by *Caspar Bauhin* under the Title of *Amygdalus dulcis putamine molliore, Pin.* 44.

Those Persons who are desirous to have this Sort of Almond in Perfection, must plant the Trees against a South, or South-east Wall, otherwise they will seldom produce Fruit in *England*: And if it happens that the Standard Trees of this Sort produce Fruit, which in favourable Seasons is sometimes seen, they rarely ripen, nor grow to any Size; but against Walls I have had perfect good Fruit.

Those Trees of the common Almond, whose Kernels are sweet, may be propagated in Plenty, by budding them upon Plum Stocks; for the Fruit will always continue the same as those from whence the Buds are taken; but the Trees raised from the Fruit seldom prove the same as those from whence the Fruit is taken. This is by Doctor *Linnæus* titled, *Amygdalus foliis petiolatis serraturis infimis glandulosis, Hort. Cliff.* 186. *Sp. Plant.* 473. and under this general Title he includes all the Species, altho' the Tree with White Flowers differs so much in Leaf, Shoot, and Fruit, as is sufficient to make a distinct Species from the common Sort. And there are Two other very distinct Species now in the Gardens, one of which hath broad Leaves, and Flowers smaller than those of the least Peach Flower; the other hath short silvery Leaves, which remain thro' the Winter, and do not fall till they are thrust off by new Leaves in the Spring.

Fig. 2. AMYGDALUS *Indica nana, H. R. Par.* The Dwarf Almond with single Flowers. This is by Doctor *Morrison* titled *Amygdalus pumila, H. R. Bles.* and in *Munting*'s *History* it is *Amygdalus nana.* Doctor *Linnæus* titles it *Amygdalus foliis petiolatis basi attenuatis, Hort. Cliff.* 186. *Sp. Plant.* 473. and he supposes it to be the same with that Plant which is figured by Doctor *Amman*, under the Title *Armeniaca Persicæ foliis, fructu exsucco, Ruth.* 273. *Tab.* 30. But the Specimens of this which were sent to *England* by Doctor *Amman* shew it to be very different from that here figured.

This Sort hath been frequently confounded with the *Persica Africana nana flore incarnato simplici, Tourn.* which may have been occasioned by People's supposing it to be the single Flower of the same Species which is usually propagated in the Nurseries by the Title of *Double-flowering Dwarf Almond* But whoever compares the Leaves, Shoots, or Flowers, of the Two Sorts, will soon be convinced of their Difference; nor is the Single, of the Sort with the Double Flowers, to be found in the *English* Gardens at present.

The Sort here figured will grow to the Height of Three Feet, and is very subject to send forth Suckers from the Roots, whereby the Ground will be stored with Plants. It flowers in *April*, and often ripens its Fruit in *England*. Both these Sorts are propagated in the Nursery-gardens near *London* in Plenty; and are sold as flowering Trees and Shrubs, being chiefly planted in Gardens for Ornament, their Flowers making a fine Appearance early in the Spring: The First Sort usually flowers in *March*; but in early Seasons it frequently is in Beauty by the Middle of *February*; and in late Years not before the Middle of *April*. When the Trees flower late in the Season, they commonly produce Plenty of Fruit; but when they come out early, the Blossoms are frequently killed, so that few Fruit succeed them. This Tree will grow to the Height of Sixteen or Twenty Feet, or more, if they are planted on a light Soil; but in strong wet Ground they do not thrive so well, nor are of so long Duration.

They have been long cultivated in *England*; the First is supposed to be a Native of *Mauritania*, and the Second of *Asia minor*.

PLATE XXIX.

ANCHUSA, *Lin. Gen. Plant.* 167. *Buglossum, Tourn. Inst. R. H.* 133. *Tab.* 53.

ALKANET.

THIS Genus of Plants is by Doctor *Linnæus* ranged in his Fifth Class, intitled *Pentandria Monogynia*, the Flowers having Five Stamina, and a single Pointal. Mr. *Ray* places it in his Thirteenth Class of Plants, which he titles, *Herbs with rough Leaves, whose Flowers are succeeded by Four naked Seeds.* The Distinction which Mr. *Ray* makes between *Anchusa* and *Buglossum*, is in the First having red Roots; in which he is followed by Doctor *Boerhaave*, who has joined some Plants to this Genus, whose Roots are not Red; but the Colour of the Root is hardly sufficient to constitute a specific Difference, much less a generical one. Doctor *Tournefort* has included all the Species under the Genus *Buglossum*; but Doctor *Linnæus* has applied this Title of *Anchusa* to the Genus, and has dropp'd the Title of *Buglossum*, the former Title having been more frequently used by the old Writers in Botany.

The Species here represented is,

ANCHUSA *strigosa, foliis linearibus dentatis, pedicellis bracteæ minoribus, calycibus fructiferis inflatis, Læfl. Lin. Sp. Plant.* 133. i. e. Alkanet with narrow indented Leaves, small Footstalks to the Branches, and a swelling Cup or Empalement to the Fruit. *a*, represents a single Flower separated; *b*, the Tube of the Flower; *c*, the Five Stamina in the Center of the Flower.

This Plant is by Dr. *Tournefort* titled, *Buglossum Lusitanicum, Echii folio undulato, Inst. R. H.* 134. As this Plant has not been figured in any of the Botanic Books, we imagined it might be more acceptable to the Curious to exhibit its Figure, rather than any of the other Species, most of which have been already figured and described by several Botanic Writers.

The Roots of *Alkanet*, which are directed for Use, are brought to *England* from the *South* of *France*, and are of a fine Red Colour; so that they are often used to make a Red Colour: But whether this is a distinct Species, or may be the Effect of the Soil or Climate in which it naturally grows, I cannot take upon me to determine; but all those Roots which I have examined of *English* Growth, have not had any Appearance of that beautiful Colour, which is constant in the Roots from abroad; tho' I have frequently sown the Seeds which have been sent from abroad for the true Sort, which *Caspar Bauhin* titles *Anchusa puniceis floribus, Plin.* 255. and *Tournefort, Buglossum radice rubra, sive Anchusa vulgatior floribus cæruleis, Inst. R. H.* 134.

The Plant here figured is a Native of *Spain* and *Portugal*; it grows near Three Feet high, having many strong lateral Branches, which are produced from the main Stem, near the Ground; these are garnished with stiff rough Leaves, Six or Seven Inches long, and about half an Inch broad at the Top, closely embracing the Branches, having no Footstalks, being Two Inches broad at the Base, and are indented and waved on their Edges; the upper Surface is beset with Hairs, and is very rough to the Touch; these are set alternately on the Branches; and from their Base the Spikes of Flowers come out, which grow a Foot or more in Length: The Flowers, which are of a fine Blue Colour, are placed alternately, having a small Leaf just below each: These Spikes are reflexed at the Top, somewhat like those of the *Vipers Bugloss*; the Empalement of the Flower afterward becomes the Cover to the Seeds, and is swell'd at the Bottom, where are lodg'd Four naked Seeds. The Root of this Plant commonly decays after the Seeds are perfected; so that it is generally no more than a biennial Plant; tho' sometimes, when it grows upon Gravel, or in the Joints of Stone Walls, it will live Three or Four Years; but those Plants seldom grow more than a Foot high, and have small narrow Leaves; so that it appears like a distinct Species.

PLATE XXX.

ANDROSACE, *Tourn. Inst. R. H. Tab.* 46. *Raii Meth.* 84. *Lin. Gen. Plant.* 179. We have no *English* Name for this Plant; but it may be called Cowslip Chickweed; for the Flowers, which are like those of *Chickweed*, grow on an Umbel, like the *Cowslip*.

THIS Genus of Plants is by Doctor *Tournefort* ranged in the Second Section of the second Class, intitled, *Herbs with a Flower of One Leaf, shaped like a Salver, whose Pointal afterward becomes the Fruit.* Mr. *Ray* places it in his Nineteenth Class of Plants, intitled, *Herbs with a Flower of One Leaf, which is succeeded by vascular Fruit.* Doctor *Linnæus* places it in his Fifth Class of Plants, intitled, *Pentandria Monogynia*; the Flowers having Five Stamina, and a single Pointal.

The Species here represented are,

Fig. 1. ANDROSACE *vulgaris latifolia annua, Inst. R. H.* 123. Broad-leav'd annual Androsace. This is the First Species mentioned in the *Gardeners Dictionary*, where the Characters of the Genus are described. *a*, represents the Umbel of Flowers; *b*, a single Flower separated from the *Involucrum*; *c*, the expanded Flower in the *Involucrum*; *d*, the intire Fruit, resting upon the *Involucrum*; *e*, the Vessel open, shewing the Seeds.

This Plant is by *Caspar Bauhin* titled, *Alsine affinis Androsace dicta major, Pin.* 251. and by *John Bauhin, Androsace Mathiola altera, Vol.* III. 368; and by Doctor *Linnæus, Androsace perianthiis maximis, Hort. Upsal.* 36. *Spec. Plant.* 141. i. e. Androsace with a large *Involucrum* to the Flowers.

Fig. 2. ANDROSACE *foliis lanceolatis dentatis glabris, perianthiis angulatis corolla brevioribus, Lin. Flor. Suec.* 160. Androsace with smooth Spear-shaped Leaves, an angular *Involucrum*, shorter than the Flower.

This Plant is biennial, seldom continuing after the Seeds are perfected; the Leaves grow close to the Ground, which are smooth, and sometimes are slightly indented on the Edges; but for the most part they are intire: From the Center of the Leaves there are Three or Four naked Stalks arise, which grow about Four Inches high, each supporting a loose Umbel of Flowers, which stand upon long slender Footstalks; they are White, and consist of One Leaf, spread open, and are divided into Five Parts at the Brim: These are succeeded by vascular Seed-vessels, which open in the Middle, having One Cell, which is replete with roundish Seeds.

The First Sort grows naturally in *Austria* and *Hungary*, amongst the Corn; and the Second is an Inhabitant of the Mountains in *Russia* and *Siberia*.

PLATE XXXI.

ANEMONE, *Tourn. Inst. R. H.* p. 275. *Tab.* 147. *Raii Method. Plant.* 69. *Lin. Gen. Plant.* 614.

ANEMONY, or EMONY.

THIS Genus of Plants is by Doctor *Tournefort* ranged in the Seventh Section of his Sixth Class, intituled, *Herbs with a Rose-flower, whose Pointal turns to a Fruit composed of many Seeds collected into an Head.* Mr. *Ray* places this Genus in his Fifteenth Class of Plants, which he titles, *Herbs with many naked Seeds succeeding each Flower:* And this is in the Seventh Section of that Class, which includes those Plants with naked Flowers. Doctor *Linnæus* places it in his Thirteenth Class, intituled, *Polyandria Polygynia*, i. e. Plants whose Flowers have many Stamina and Germina: To this Genus he adds the *Anemonoides* of *Boerhaave*, the *Hepatica* of *Dillenius*, and *Pulsatilla* of *Tournefort*, making them only different Species of the same Genus: But as the *Hepatica* has a Three-leav'd Empalement to the Flower, and the *Pulsatilla* has a many-leav'd Empalement, so they should not be joined with the *Anemone*, which has a naked Flower.

The Species here represented is,

ANEMONE *tenuifolia multiplex, mutatâ florum facie quotannis nova, R. H. Rar.* Narrow-leav'd Double Anemony, with Flowers which vary in their Colour annually; called by the *French Cameleone*, and in *England* the *Battersea Red*, or *High Admiral*. *a*, represents the outer Petals of the Flower, which are much broader than those which occupy the Middle, as at *b*, which are narrow, and are what the Florists call the Thrum of the Flower.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*, under the Title of *Anemone*.

There are a great Variety of these Flowers in the Gardens of the Curious, which have been obtained from Seeds: These differ in their Colour, and the Size of the Flowers; and are accordingly distinguished by the Florists: But as these are only accidental Varieties, arising from the Seeds of the same Flower, they are not esteemed real Differences by Botanic Writers, who only mention the Broad and Narrow-leav'd Sorts as Two distinct Species.

The Sort here represented was some Years past in great Esteem, the Flowers being very large and double; and these would every Year vary so much in their Colours and Stripes, that if an hundred of these Roots were planted, there would such a Variety appear in the Flowers, as those who were not skilled in Flowers might easily be deceived, in supposing them so many different Flowers; some of the Flowers being of a deep red Colour, with scarce any Stripes of other Colours; and other of the Flowers being greatly striped thro' every Petal with white; and the several Gradations from plain to those which are more white than red, will be found in this Flower, where there are any Number of Roots planted.

The Single, or (what the Florists call the *Poppy Anemony*) are those which produce Seeds; for the double Flowers never have any; therefore, in order to obtain good Flowers, the Seeds should be saved from the best of those with single Flowers, some of which have a double Range of Petals surrounding the Organs of Generation. From the Seeds of these more double Flowers may be expected, than from such as have only a single Range of Petals; and those whose Flowers are well coloured, should also be preferred. The blue and purple-colour'd Flowers are now most esteemed by the Florists; but a Mixture of the red and striped Flowers will greatly set off the others.

These Flowers grow naturally in the Islands of the *Archipelago*, and in several other Parts of the East, where the Borders of the Fields are bedecked with them in the Spring, making a very gay Appearance during their Continuance in Beauty. From thence the Roots have been transplanted into the Gardens in *Europe*; and from their Seeds the great Variety which is at present to be found in the Gardens of the Curious, have been obtained. These Flowers are in Beauty in *April* and *May*, and the Seeds ripen in *July*.

PLATE XXXII.

ANGUINA, *Michel. Nov. Gen.* 12. *Tab.* 9. *Cucurbita, Hort. Pis. Tab.* 22. *Trichosanthes, Lin. Gen. Plant.* 966.

SNAKE-GOURD.

The Characters are,

It hath Male and Female Flowers on the same Plant, as the Gourds, Cucumbers, *and* Melons, *have: The Male Flowers have an Empalement of One Leaf, which is divided into Five Parts at the Top: The Petals of the Flower consists of many Filaments or Threads, as at Letter* b, *having Three* Stamina *in the Center: The Female Flowers have a reflected Empalement of One Leaf, cut into Five Parts, as at Letter* a; *in the Centre of which is the* Germen, *which afterward becomes a long twisted Fruit, represented at* c, *and is divided in Three Cells, which contain many flat Seeds.*

This Plant is figured by *Michels*, in his *Nova Genera Plantarum*, *Tab.* 9. who applied this Title to the Genus, in the Catalogue of the Garden at *Pisa:* It is also figured under the Title *Cucurbita sinensis fructu longo anguinovario flore candido, capillamentis tenuissimis ornato*; but Doctor *Linnæus* has changed the Title of this Genus to *Trichosanthes*, and places it in his Twenty-first Class of Plants, intituled, *Monoecia*, there being Male and Female Flowers on the same Plant. According to Mr. *Ray*'s Method, this Genus must be placed in his Sixteenth Class, which he titles *Herbæ Pomiferæ*, i. e. Apple-bearing Plants. It must be placed in the Seventh Section of the First Class of Plants in *Tournefort*'s Institutions, which is composed of the cucurbitaceous Plants. These have Bell-shaped Flowers of One Leaf, whose Empalement turns to a Fruit, for the most part fleshy.

It is an annual Plant, which must be raised on a Hot-bed early in the Spring; and when the Plants are of a proper Strength to remove, they must be transplanted on a new Hot-bed, and treated in the same Manner as early *Cucumbers* and *Melons*, with which Management the Plants will ripen their Fruit in *August* or *September*; but unless they are brought forward in the Spring, they will not perfect their Seeds in *England*. It is a Native of *China*, from whence the Seeds were brought, which have been [illegible] in some curious Gardens in *Europe*, as a singular Plant; but the Fruit being of no Use, there are few of the Plants raised in *England*, except in Botanic Gardens, for Variety.

PLATE XXXIII.

[illegible], *Tourn. Inst. R. H.* 106. *Tab.* 35. [illegible], *Rai Method. Plant.* 70. *Cucumis, Lin. Gen. Plant.* 1669.

[illegible] WATER-MELON.

THIS Genus of Plants is ranged in the Seventh Section of *Tournefort*'s First Class of Plants, who makes the distinguishing Character of it to consist in the Plant's having divided Leaves, and an edible Fruit: In all other Respects it agrees with the other cucurbitaceous Plants. Mr. *Ray* places the *Anguria* in the Sixteenth Class of Plants, which he stiles *Herbæ Pomiferæ*, i. e. Apple-bearing Herbs; but Doctor *Linnæus* joins this with the *Cucumber*, making them of the same Genus.

The Characters of this Genus are exhibited in the *Gardener's Dictionary.*

The Species here represented is,

ANGURIA *Americana fructu echinato eduli, Inst. R. H.* 107. i. e. *American* Water-Melon, with a prickly eatable Fruit. Doctor *Plukenett* has given a Figure of this Fruit, with the Title of *Cucumis sylvestris Americanus, Anguriæ folio, fructu ovi figurâ & magnitudine, ad maturitatem pallido, spinosis tuberculis momordicæ instar muricato, Phyt.* 170. f. 3. Sir *Hans Sloane*, in his *Catalogue of Jamaica Plants*, calls it, *Cucumis Anguriæ folio laciniato aspero, fructu minore candido, spinulis obtusis muricato*, p. 103. Doctor *Linnæus* titles it, *Cucumis foliis palmato-sinuatis, pomis sub-ovatis echinatis, Hort. Upsal.* 292. *Spec. Plant.* 1011. This is the Eighth Sort mentioned in the *Gardener's Dictionary.*

The Fruit of this Sort is eaten when green by the Inhabitants of the *American* Islands, as Cucumbers; where the Plants grow naturally without Culture; but they are greatly inferior to the Cucumbers which are eaten in *Europe*. The Fruit seldom grows so large as a Pullet's Egg, and is in Shape like it; but the outer Coat or Rind is closely beset with blunt Prickles, somewhat like the Skin of an Hedgehog. Where the Fruit is exposed to the full Air, it is of a dark-green Colour; but those of them which are closely covered either by the Leaves of the Plants, or Weeds growing among them, are as white as the white Cucumber, which occasioned Sir *Hans Sloane*'s giving it that Epithet.

Most of the other Species of this Genus have large Fruit, which are served up to the Table in Desert, when ripe, as the Melon; and in hot Countries the Fruit is greatly esteemed for its cooling Quality, the Pulp melting like Ice; and when they are gathered in a Morning, before the Sun has warmed them, and kept in a cold Situation, the Pulp is almost as cold as Snow, and hath a Sweetness like Ice-water sugared. And these Fruit may be eat in Plenty with great Safety, by Persons in Fevers, and are found to be very refreshing and wholesome; but in *England*, where the Weather is seldom so hot as to make these cold Fruits desirable, there are few Persons who esteem them; therefore they are cultivated in few Gardens here, the *Musk-Melon* being greatly preferred to them, as their Flavour is much richer; and when they are good, seldom occasion any Disorder to the Persons who eat them in Moderation. The Plant here figured is rarely cultivated in the *English* Gardens, unless for the sake of Variety. It grows naturally in the warm Parts of *America*, from whence their Seeds were brought by some curious Persons, which have been sown in Botanic Gardens, where the Plants are annually raised, to add to their Collections.

PLATE XXIXV.

ANIL, *D. Marchan. Memoir de l' Acad. Scien.* 1718. *Emerus, Tourn. Inst. R. H.* 650. *Tab.* 418. *Indigofera, Lin. Gen. Plant.* 794.

INDICO.

THIS Plant is by Doctor *Tournefort* joined to the *Emerus*, or *Scorpion-Senna*; and in this he is followed by other Botanic Writers; Few of them having seen the Plant in Flower, had no Opportunity to examine the Characters. *John Bauhin* ranges it with the *Colutea*, or *Bladder-Senna*; and *Caspar Bauhin* joins it to the *Isatis*, or *Woad*, from its Property of making a blue Dye; nor was this Genus properly distinguished from the others of the same Class of Plants, till Mr. *Marchant* gave a Memoire to the Royal Academy of Sciences at *Paris*, in the Year 1718; in which he has given a very minute Description of every Part of the Plant.

It should be placed in *Tournefort*'s Tenth Class of Plants with a papilionaceous Flower; but he has separated the Trees and Shrubs from the Plants of this Class, and placed them at the End of his Institutions. Doctor *Linnæus* places it in his Seventeenth Class of Plants, intituled *Diadelphia Decandria*, the Flowers of this Class having Ten Stamina, Nine of which are joined together, and the other stands single at a small Distance from the other. As [illegible] the Title of *Anil* to this Genus, which [illegible] the Inhabitants of most of the Countries where it grows naturally had applied to it, Doctor *Linnæus* has rejected it, because it is a barbarous Name, and has given it the Title of *Indigofera*.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The



ANEMONE *tenuifolia multiplex mutata florum facie quotannis nova. H. R. Par.*

Publish'd according to Act by P. Miller August [illegible]

J. Jefferys sculp.

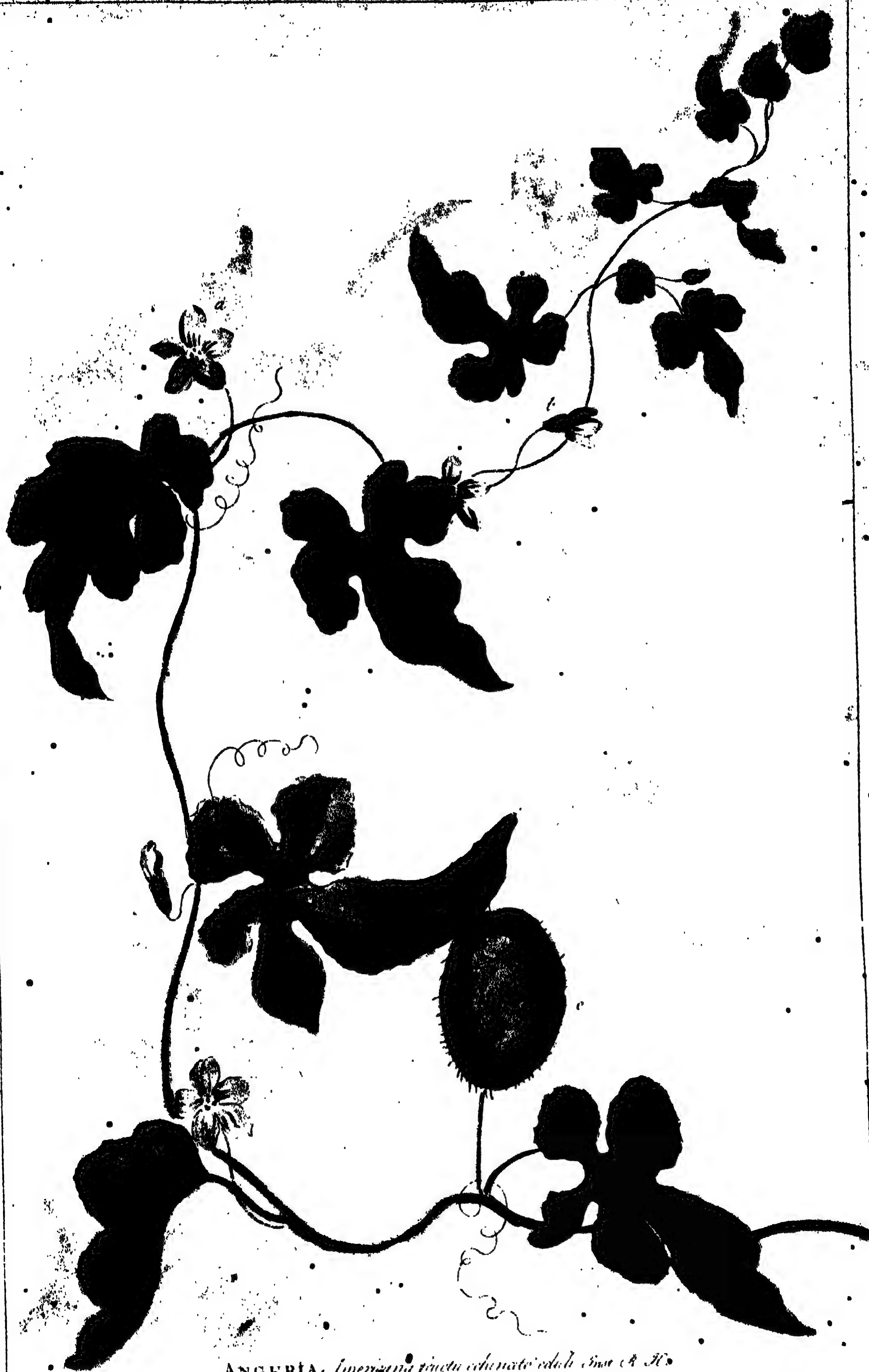
Anemony

Pl XXXII

ANGUINA *Sinensis, flore albo elegantissimo, capillamentis tenuissimis ornato fructu longo contorto, sub initium ex albo & viridi variegato per maturitatem prorsus rubro. Mich: Nov. Gen. ...*

Published according to Act ... by P. Miller August ... 17..

Snake Gourd



ANGURIA, *Americana fructu echinato eduli Inst. R. H.*

Melon – the water!



ANIL sive Indigo Americana, siliquis in falculæ modum contortis D: Herm. Mem. Acad. Reg. Scien. 1718.

J. Jefferys sculp.

Published according to Act of Parl. by P. Miller August 25th 1756

Indigo



ANNONA *foliis lanceolatis, fructibus trifidis* Lin. Sp. plant. 537

Published according to the Act by P. Miller [illegible]

J. Jefferys sculp.

water apple

custard apple



Cammock

The Species here represented is,

Anil, *five Indigo Americana, filiquis in falculæ modum contortis, Marchan. Mem. Acad. Reg. Scien.* 1718. *American* Indigo, with crooked Pods, shaped like a Sickle. *a*, represents the Flower with its Two Wings expanded; *b*, the Pod; *c*, the Seeds taken out of the Pod.

This is by *Tournefort* titled, *Emerus Americanus filiqua incurva*, *Inst. R. H.* 650. *John Bauhin* calls it *Colutea foliis Anil nominatum, Hist.* 1. 384. *Caspar Bauhin*, in his Pinax, titles it *Isatis Indica, foliis Rorismarini Glasto affinis*, p. 1130.; and in the *Hortus Malabaricus*, Vol. I. p. 101. it is described under the Title *Ameri*, which is the *Malabar* Name for this Plant. Sir *Hans Sloane*, in his Catalogue of *Jamaica* Plants, titles it, *Coluteæ affinis fruticosa, floribus spicatis purpurascentibus, filiquis incurvis, e cujus tinctura Indigo conficitur*, p. 141. Doctor *Linnæus*, in the *Flora Zeylanica*, calls it *Indigofera leguminibus arcuatis incanis racemis folio brevioribus*, p. 273. This is called in the *West-Indies Guatamala Indigo*, to distinguish it from another Sort which approaches near to it, and is in the Islands of *America* called *Wild Indigo*, but is not esteemed so good for making Indigo as the other. There is also another Sort very different from either of these, which is found wild in *South Carolina*, and was much cultivated by the Indigo Planters there, when they began to raise the Indigo first; but, upon Trial, they found it would not produce Indigo in so great Quantity as the *Guatamala*; so they have abandoned that Sort, and now cultivate only that here figured. The *Carolina* wild Sort hath a perennial Root, but an annual Stalk, which decays in Winter; the Leaves are set much thinner on the Branches, and are not so succulent as those of the manured Sort; yet from this wild Sort, as also from Two other Species, which grow naturally in *India*, the Inhabitants of that Country make good Indigo; and formerly there was one Species of *Anonis* used in *America* for this Purpose: And I am persuaded there are several other Plants which will afford this Dye, tho' perhaps not in so great Quantity as this.

As the Inhabitants of *Carolina* have taken to the Culture of *Indigo*, we may hope in a few Years that this Branch of Trade will return again to the *British* Colonies, which hath been for several Years past intirely engrossed by the *French*; and if proper Care is taken by the Planters in the Management of this valuable Commodity, there can be no doubt of their having the greatest Part of this Trade to themselves, since they may carry it on at a less Expence, than it can be done in the Sugar Colonies. But there are Two Instances in which they have always failed, since they began the Culture of *Indigo*; the first is, in sowing the Seeds too close, whereby the Plants are drawn up tall, and have a greater Proportion of Stalks than Leaves, and the Stalks, consisting chiefly of Fibres, afford but a small Quantity of Indigo; the other is, in letting the Plants stand too long before they are cut for Use, whereby most of the large Leaves are all decayed or fallen off, and the Plants become woody; so that there is but a small Part of the Plant dissolved by the Fermentation in the Vat; whereas if the Plants have sufficient Room to grow, they will be furnished with Leaves from the Ground upward, which will be fat and succulent; and if the Herb is cut, as soon as any Flowers appear on the Plant, the Stalks will then be soft; so that after they have sustained the Fermentation in the Vat, there will but a small Part of the Plant remain undissolved, and a much greater Quantity of Indigo produced from the same Quantity of the Plant; which will be of a finer Colour, and bear a greater Price in the Markets of *Europe*. As I have given the whole Process of making Indigo in the *Gardener's Dictionary*, I shall not repeat any Part of that in this Place; but have taken the Liberty of mentioning the Two Articles above, believing that may not only be of Use to the Indigo Planters, but, if rightly attended to, may become a national Benefit.

PLATE XXXV.

Anona, *Lin. Gen. Plant.* 613. *Guanabanus, Plum. Nov. Gen.* p. 42. *Tab.* 10. *Annona, Raii Meth. Plant.* 153. There are many Species of this Genus, which are Natives in the warm Parts of *America*, *Africa*, and *Asia*; some of which are esteemed for their Fruits, which are usually served up at the Tables of the principal Inhabitants of the Countries where they grow; and are by the *English* in *America* distinguished by the following Titles; *viz. Custard Apple, Sour-Sop, Sweet-Sop, Water-Apple*, &c.

THIS Genus of Plants is by Doctor *Linnæus* ranged in his Thirteenth Class, intituled, *Polyandria, Polygynia*. The Plants ranged in this Class should have many Stamina and Germina in each Flower, which is not so in those Species of this Genus which I have examined; but as the Characters which Doctor *Linnæus* has given to this Genus are taken from Father *Plumier's* Figures, he is excusable for the Mistake. In the Centre of each Flower there appears to be a great Number of Summits surrounding the Germen, where there is a trifid Style; and in some of the Species there are Three Stamina, which rise above the others; but in the Species here figured these are wanting.

Father *Plumier*, who follows *Tournefort* in his Method of classing the Plants, places this in the Class of Plants with a Rose-flower, whose Pointal becomes a soft fleshy Fruit, inclosing many hard Seeds.

Mr. *Ray* ranges it with the Apple-bearing Trees, whose Fruit are not umbilicated, and have a soft Pulp.

The Two Titles which have been applied to this Genus of Plants, are both barbarous Names of the Countries where they naturally grow; therefore have been indifferently used by the Writers on Natural History; But this of *Anona* being less harsh than *Guanabanus*, Doctor *Linnæus* has chosen to make use of it, rather than the other.

The Species here represented is,

Anona *foliis lanceolatis, fructibus trifidis, Lin. Sp. Plant.* Anona with Spear shaped Leaves, and two or three Fruit succeeding each other on the same Foot Stalk, commonly called, by the Inhabitants of *North America*, Papaw. *a*, represents the Flower composed of Three Petals, which is surrounded by a Three leav'd Empalement; *b*, shews an intire Fruit; *c*, is a Fruit cut through the Middle, shewing the Seeds *d*, lying in a Row on one Side of the Fruit.

The

The Characters of this Genus are exhibited in the *Gardener's Dictionary*, under the Article *Guanabanus*.

This Species is figured and described by Mr. *Catesby*, in his History of *Carolina*, and the *Bahama* Islands, under the Title of *Anona fructu lutescente levi scrotum Arietis referente*, Vol. II. p. 85, he mentions it with other Plants which he found growing on the *Bahama* Islands; but doth not take any Notice of its being found in *Virginia* and *Maryland*, tho' it has been found in both those Countries; and the Seeds have frequently been brought to *England*, by the Title of *Papaw-Tree*. Mr. *Catesby* says, that this Tree seldom grows more than Ten or Twelve Feet high in that Country, with Stems as large as the Small of a Man's Leg; so that it is rather a Shrub than a Tree, especially as it often rises with several Stems from the Root. He also mentions that the Fruit is seldom eaten but by the Negroes. In his Description of the Flower he has certainly mistaken the Colour, which he says is of a yellowish Green; whereas all those Trees which have produced Flowers in *England*, are very different, being of a rusty purple Colour, as they are here represented; and there can be no doubt of their being the same Species with that he has described; the Fruit and Seeds being very different from all the other Species of this Genus in Shape, so that it is very easily distinguished.

This is the only Species of the Genus, which will live in the open Air in *England*. All the other Species which are yet known being too tender to live in this Country, unless they are preserved in Stoves; the largest Plant of this kind, which I have seen, is growing in the curious Garden of his Grace the Duke of *Argyle*, at *Whitton* near *Hounslow*, which has produced Flowers for some Years past; but our Summers are not warm enough for the Plants to produce Fruit in *England*. There are also some other Trees of this kind in the Gardens near *London*, which have flowered, but are of a smaller Growth. The Flowers are produced in *England* the Beginning of *May*, soon after the Leaves come out.

It is a Native of the *Bahama* Islands, of *Carolina*, *Maryland*, and *Virginia*, growing usually in low, moist Places, where they are sheltered from violent Winds. In *England* these Plants are apt to suffer by Cold, while young; but after they have obtained Strength, they will resist the Frost, and thrive very well in the open Air, if they are planted in a sheltered Situation.

PLATE XXXVI.

ANONIS, *Tourn. Inst. R. H.* 408. *Tab.* 229. *Raii Method. Plant.* 107. *Ononis, Lin. Gen. Plant.* 772.

Rest-Harrow, Cammock, Petty Whin; and in some Counties it is called *Furze*.

DOCTOR *Tournefort* places this Genus in his Tenth Class of Plants with a papilionaceous Flower. Mr. *Ray* places it in his Twenty-first Class of leguminous Plants with a papilionaceous Flower. Dr. *Linnæus* ranges it in his Seventeenth Class of Plants, intituled, *Diadelphia Decandria*; in which Class are included all the leguminous Plants with a Pea-flower. The Two Titles of *Anonis* and *Ononis* are indifferently used by the *Latin* Writers on Botany.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The Species here represented is,

ANONIS *purpurea verna seu præcox perennis frutescens flore rubro amplo, Mor. Hist.* 2. 170. Early shrubby purple Rest-Harrow, with a large red Flower. *a*, represents the Fore-part of the Flower to the View; *b*, shews the hinder Part, with the Empalement; *c*, the Pod, which succeeds the Flower. This is the Sixth Species mentioned in the *Gardener's Dictionary*. It is called by *Dodart*, in his Memoirs, *Anonis purpurea frutescens non spinosa*; and in the Memoirs of the Royal Academy of Sciences at *Paris*, *Anonis montana præcox purpurea frutescens*. Doctor *Linnæus* has titled it, *Ononis floribus paniculatis, pedunculis subtrifloris, stipulis vaginalibus, foliis ternatis, Hort. Cliff.* 358.

This is a very beautiful Shrub, which seldom rises above Two or Three Feet high in *England*; but divides into many Branches, which spread near the Ground. At the Extremity of every Branch there are Spikes of large red Flowers produced about the Beginning of *May*; at which Time these Shrubs make a fine Appearance, and are one of the principal Ornaments of the Gardens at *Paris* at that Season: But in *England* it is far from being common; and only to be found in some curious Gardens, which may have been occasioned by over Care; for it is a very hardy Plant in respect to Cold; but it is with Difficulty preserved in Pots, being One of those Sort of Plants which rarely thrive, unless they are planted in the full Ground: It delights in a middling Soil, neither too strong, nor over-light; and in an Eastern Exposure, where it may have but little Sun, the Plant will thrive well, and annually produce Flowers, and perfect Seeds. It commonly flowers in *May*, and the Seeds are ripe in *July*. This Plant is easily propagated by Seeds, which should be sown early in *March*, on a Bed of middling Earth, exposed to the East. The Plants will come up in about Six Weeks after, but should not be removed till the following Autumn.

The common Sort of *Anonis*, which is mentioned as a medicinal Plant, is a very troublesome Weed, where it hath once gotten Possession of the Ground, the Roots of it spreading very wide; and are so tough, as scarce to be cut or broken by the Plow; which occasioned the Name of *Rest Harrow*, and *Resta-bovis*. In some of the midland Counties it is called *French* Furze; but how that Epithet came to be applied to this Plant, is hard to determine.

PLATE

PLATE XXXVII.

ANONIS *viscosa spinis carens lutea major, C. B. P.* 389.

Great yellow viscous Rest-Harrow, without Spines.

THIS is the *Natrix Plinii herbariorum, Lob. Advers.* and *Anonis mitis flore luteo, Clus. Pan. Ononis mitis flore luteo, Hort. Eyst.* It is the *Anonis sine spinâ lutea, Tabern. Icon.* 529. and *Anonis lutea non spinosa Dalechampio natrix, J. B.* 2. 293. Doctor *Linnæus* titles this Plant, *Ononis pedunculis unifloris filo terminatis foliis ternatis, Hort. Cliff.* 358. and he has joined to this the *Anonis viscosa spinis carens lutea minor, C. B. P.* supposing them to be the same Plant, but they are very different from each other. The Flowers of the Plant here figured being pendulous, whereas those of the other stand erect; the Root also of this Plant is perennial, but the Stalks are annual, dying to the Ground every Winter. But the other Plant is biennial, the Root seldom continuing longer than Two Years, and often perishes, soon after the Seeds are perfected, in the first Winter. The Stalks of this grow much taller, the Flowers are much larger, and stand upon longer Foot-stalks than the other, and the Appearance of the Plant, when in Flower, is much more beautiful; so that it deserves a Place in the Flower-garden; whereas the other is only preserved in Botanic Gardens, for Variety. *a*, shews one of the pendulous Flowers on its Back-side. *b*, represents the Fore-side of the Flower, shewing its large Standard, with the Two Wings and the Keel.

This is the Twentieth Sort exhibited in the *Gardener's Dictionary*, the Flowers are of a beautiful yellow Colour, growing pretty close together, on long Panicles: The Time of its flowering is in *June* and *July*, and the Seeds ripen the Beginning of *September*. The Roots of this Sort do not bear transplanting well after the First Year; for when they begin to be hard and woody, they seldom put out new Fibres, if they are removed; so they should be transplanted the first Autumn to the Places where they are to remain. If the Soil is dry, the Roots will continue several Years; but in wet Ground they are apt to rot in Winter. This Plant is a Native in the South of *France, Spain*, and *Portugal*, growing in their Arable Land.

PLATE XXXVIII.

ANTHEMIS, *Lin. Gen. Plant.* 870. *Chamæmelum, Shaw. pl. Afr.* 138. *Pyrethrum, C. B. P.* 148. *Raii Hist.* 353.

PELLITORY *of* SPAIN.

THIS Genus of Plants is, by Doctor *Linnæus*, ranged in his Nineteenth Class, intitled, *Syngenesia Polygamia superflua. Casper Bauhin* makes this a distinct Genus; so doth Mr. *Ray*, in his History of Plants, where he copies form *Caspar Bauhin. Tournefort* hath not mentioned this Plant in his Institutions; though it is hardly possible it should escape his Knowledge, as he travelled through great Part of *Spain* and *Portugal*, in search of Plants; in both which Countries it is very common in Vineyards, and other cultivated Lands. This Plant, according to *Tournefort*'s Method, should be placed in the Genus of *Buphthalmum*.

The Species here delineated is,

ANTHEMIS *caulibus simplicibus unifloris decumbentibus, foliis pinnato multifidis, Hort. Cliff.* 414. Pellitory of *Spain. Caspar Bauhin* titles it, *Pyrethrum flore bellidis, Pin.* 148. and *Lobel* calls it, *Pyrethrum officinarum. Gesner* calls it, *Pyrethrum Germanicum*, to distinguish it from Two other Plants, which then had the Appellation of *Pyrethrum*, which were both umbelliferous Plants, but, being of an acrid Taste, were supposed to have the same Quality of discharging cold Rheums, so were classed according to their supposed Virtues, which was the most common Method among the old Botanic Writers.

According to Mr. *Ray*'s Method, this Plant should be placed in his Genus of *Chamæmelum*: And Doctor *Shaw*, who found this Plant growing wild in *Africa*, has given it the following Title, *Chamæmelum specioso flore, radice longa fervida*, p. 138. *i. e.* Camomile with a specious Flower, and a long warm Root. Doctor *Linnæus* has adopted the Title of *Anthemis*, which is an old Name that hath been applied to Camomile, and hath dropped that of *Chamæmelum*; and he has added most of the Species of *Buphthalmum* to this Genus. In the Synonyms which he has quoted to this Plant, he adds the *Buphthalmum Creticum Cotulæ folio, Breyn. Cent.* which is a very different Plant from that here figured. For this hath a perennial Root, which runs deep into the Ground, shaped like a Carrot, but *Breynius*'s Plant is an annual; the Stalks are branching, and stand erect, the Flowers growing at the Extremity; whereas those of the Pellitory trail upon the Ground, and are single, each having One Flower. The Plant figured by *Breynius* is the *Buphthalmum Cotulæ folio, C. B. P.* which is a medicinal Plant, standing in most of the Dispensaries under that Title: And this Plant is under the Title of *Pyrethrum* in the Dispensaries; the Roots being imported from Abroad, which is the only Part of the Plant in use. The Characters are exhibited in the *Gardener's Dictionary*, under the Title *Buphthalmum*. *a*, represents the Front of the female Floret, which is stretched out on one Side like a Tongue. *b*, shews the hinder Part of the same, which is of a purple Colour: These compose the Rays or Border of the Flower. *c*, shews one of the hermaphrodite Flowers, which compose the Disk. *d*, the double Style. *e*, the Five Stamina, which are in each of the hermaphrodite Flowers. The Roots of this Plant run down a Foot or more into the Ground, are in Shape like those of Carrot, about as big as a Man's Finger, of the Colour of Horse-radish before the Roots are washed, and are white within, of an acrid biting Taste. From the Root arise Stalks about a Foot or more in Height, which are garnished with fine cut Leaves, somewhat like those of *Stinking Mayweed*, but narrower. At the Top of each Branch is produced one large radiated Flower, like those of *Camomile*, but much larger, being white within, and of a purple Colour on the Outside. When the Flowers begin to decay, and the Seeds are formed, the Weight of the Heads generally

generally declines the Stalks to the Ground; and if the Season at that Time proves moist, the Seeds of this Plant do rarely ripen in *England*; for the Embryo's of the Seed are each included in a scaly Cover, into which if the Wet gets, the Embryo's perish; so that there are few Years when the Seeds of this come to Maturity in *England*, which occasions its being very rare in the Gardens here. The first Time I raised this Plant was from Seeds which were picked out of *Raisins*. This was in 1732; and the Year after, the Plants produced Seeds, which ripened well, so that I had a Supply of them to distribute; and the Plants which were raised from these Seeds continued several Years, but they did not perfect their Seeds; so that, in the Winter 1753, the old Roots being destroyed, the Plant is at present lost in *England*.

This Plant will thrive very well in the open Air in *England*, and will resist the Cold of our ordinary Winters, provided the Seeds are sown upon a dry Soil; for in wet Ground the Roots will perish with the first Cold of Autumn. The Seeds of this Plant should be sown where the Plants are to remain; for as they have long Tap-roots, like the Carrot, so they do not bear transplanting well. It loves a loose sandy Soil, where there is sufficient Depth for the Roots to run down; for in a shallow Ground the Plants seldom continue longer than One Year.

It flowers in *June*, and the Seeds ripen in *August*, but if the Season proves moist, at the Time of its flowering, or when the Seeds are forming, they seldom come to Maturity. The Flower-stems rise about One Foot high, each having One Flower on the Top, shaped like those of Camomile, but much larger, being of a pure white Withinside, and of a purple Colour on the Outside; so that they make a pretty Appearance in the Garden, during the Time of their flowering. The Roots may be taken up for Use toward the End of *October*, when they are not vegetating.

PLATE XXXIX.

ANTHERICUM, *Lin. Gen. Plant.* 380. *Bulbine, Lin. edit. prior.* 269. *Flor. Leyd. prod.* 33. *Phalangium, Tourn. Inst. R. H.* 368. *Tab.* 193. *Raii Method.* 118.

SPIDER-WORT.

THIS Genus of Plants is, by Doctor *Linnæus*, placed in his Sixth Class of Plants, intituled, *Hexandria Monogynia*; the Flowers having each Six Stamina, and One Style. He distinguishes the Species of this Genus from those of *Asphodelus*, by the Petals of the Flowers being spread open, and the Filaments being hairy. *Tournefort* makes the Difference between *Phalangium* and *Asphodelus* to consist in the Flowers of the former having Six Petals, and those of the latter are only cut into Six Parts at the Top, but are joined at the Bottom; so that it is a Flower of One Leaf. And he distinguishes the *Phalangium* from *Ornithogalum* by the Root, the latter having bulbous Roots, and those of the former have fibrous Roots. Which is also Mr. *Ray*'s distinguishing Character of this Genus.

The Species here represented are,

Fig. 1. ANTHERICUM *acaule, foliis carnosis teretibus spicis florum longissimus laxis. African* Spider-wort, without Stalks, taper fleshy Leaves, and very long loose Spikes of Flowers. *a*, represents a single Flower, taken from the Spike. *b*, a Seed-vessel. *c*, One of the Seeds. This approaches near to the *Anthericum foliis carnosis subulatis semiteretibus strictis, Hort. Upsal.* 82. but the Leaves of this are much longer, rounder, and of a glaucous Colour. The Spike of Flowers is more than twice the Length of the other, and each Flower has a much longer Foot-stalk, so that whoever sees the Two Plants, cannot doubt of their being different Species; especially when they are known to keep their Differences when raised from Seeds, as for Two Years the Plant here figured has done; for I have raised several of the Plants from Seeds the Two last Years, which have not in the least varied from the old Plant. And the other Sort I have sown the Seeds of several Years, without having any Variation in the Plants. I received the Seeds of this Plant from the *Cape of Good Hope*, in the Year 1751; and the Plants which came up flowered, and produced Seeds the next Spring, and have every Year produced Plenty of Seeds since. The Plants constantly flower twice a Year, in *April* and *May*, and again in *August* and *September*. The Spikes of Flowers, which appear in the Spring, are always succeeded with Seeds, which will ripen well; but those which appear in the Autumn do rarely perfect their Seeds; for the Winter generally is too cold in *England* to ripen their Seeds. This Plant is full as hardy as the Fourth and Fifth Sorts of *Phalangium*, in the *Gardener's Dictionary*, so only require to be protected from the Frost; but should have as much free Air as possible in mild Weather, otherwise they will draw up weak, and will not flower well. The Spikes of Flowers are near Two Feet high: These are produced from the Roots, between the succulent Leaves of the Plant; and being of a fine yellow Colour, they make a good Appearance during the Time of their flowering.

Fig. 2. ANTHERICUM *sessile foliis linearibus planis caule decumbente*. Low Spider-wort, with narrow plain Leaves, and a declining Stalk. *a*, represents the declining Flower-stem. *b*, the Empalement of the Flower. *c*, the Flower expanded. *d*, a Flower taken out of the Empalement. *e*, the Stamina. This Plant approaches near to *Ornithogalum vernum luteum foliis angustis hirsutis, Flor. Virg.* 37. but it differs from that, in having several Flowers included in the same Cover, whereas that has but Two. The Stalks of that are always erect, but these constantly incline to the Ground. And the Flowers of that appear only in the Spring, whereas this Sort flowers almost every Month.

The Roots of this Plant came from *Jamaica*; they were accidentally taken up with some Plants of Allspice, which were sent me from thence, which were dead when they arrived; but the Roots of this Plant had put out their Leaves; so I planted them, and placed them in the Bark-bed in the Stove, where they soon flowered, and perfected their Seeds, and have since continued to produce Flowers most Part of the Year.

This Plant will not thrive well in *England*, unless the Pots are plunged into an Hot-bed of Tanners Bark, and the Air kept up to the Heat assigned for the *Ananas*. In this Situation the Plants will thrive, and produce Plenty of Flowers, and perfect their Seeds; which

if



ANONIS, *viscosa spinis carens lutea major* C.B.P.





ANTHERICUM

ANTHERICUM



ANTHOLYZA *foliis linearibus sulcatis floribus albis uno versu dispositis*



Fig. 2.

Fig. 1 ANTHYLLIS *herbacea foliis quaterno-pinnatis floribus lateralibus Hort. Upsal. 220.*

Fig. 2. ANTHYLLIS *fruticosa foliis pinnatis æqualibus floribus capitatis Hort. Cliff. 371.*

Publish'd according to Act of Parliament September the 3.[d] 1755

J. S. sculp.



ANTIRRHINUM

if suffered to scatter upon the Pots, will produce Plenty of young Plants, without any Care; or if they are sown in Pots, and plunged into a Hot-bed of Tanners-bark, soon after they are ripe, the Plants will come up in about Six Weeks after; and when they are fit to transplant, they should be treated in the same Manner as the old Plants.

The Leaves of this Plant are about Six Inches long, shaped like those of Grass, and are a little hairy. The Flower-stalks are seldom more than Four Inches long, and incline toward the Ground. There are Three or Four of these produced at the Extremity of the Foot-stalk, which are of a yellow Colour within, but greenish on the Outside, and are of short Duration, seldom continuing open more than One Day; but fresh Flowers succeed them; so that they are not long destitute of Flowers, especially in Summer.

PLATE XL.

Antholyza, *Lin. Gen.* 56.

The Characters of this Genus are,

The Flower is of One Leaf, divided into Six Parts, the Three Upper being larger than the lower: Each Flower is inclosed in a Spatha, or Sheath. b, *which is composed of Two Leaves. In the Center of the Flower is placed the Germen, crowned with a trifid Stygma, and attended by Three long slender Stamina, as at* a, *which support small Summits. Each Flower is succeeded by a roundish Seed-vessel, divided into Three Cells, which are filled with small triangular Seeds.*

THIS is placed by Doctor *Linnæus* in the Third Division of his Third Class of Plants, intituled, *Triandria trigynia*, each Flower having Three Stamina, and Three Stigma. There is one Species of this Genus figured in the *Hortus Amstelodamensis*, with the following Title, *Gladiolo Æthiopico similis planta angustifolia*, Vol. I. Tab. 41. The Flowers of that Plant are more irregular than those of the Plant here figured; but as this agrees with the general Characters which Doctor *Linnæus* has applied to this Genus, I have placed it under that. The Flower being monopetalous, separates it from *Gladiolus*; and being irregular in its Form, from *Ixia*.

The Species here represented is,

Antholyza *foliis linearibus sulcatis, floribus albis uno versu dispositis.* As we have no *English* Name for this Genus, and the Flower approaching near the *Cornflag*, I shall call it *Strange Cornflag*, with narrow furrowed Leaves, and white Flowers, standing in one View on the Stalk.

This Plant hath a bulbous Root, in Shape and Size like those of the Vernal Crocus, but the Cover of the Root is white, and very thin. From the Root arise Five or Six long narrow Leaves, which are deeply furrowed: Between these arise the Flower-stem, which is about a Foot and half high, bending on one Side, and toward the Top are produced Five or Six Flowers, ranged on one Side the Stalk, each having a Two-leav'd Spatha, or Sheath: These are smaller than those of the *Cornflag*, and have a Tube about half an Inch long, so that the Flower is of One Leaf, in which it differs from the *Cornflag*. It is of a pure white when it first opens, but afterward changes to a darker Colour. In the Center of the Flower is placed the Germen, crowned with Three Stigma, of a dark Colour, attended by Three slender Stamina. The Germen afterward becomes a roundish Seed-vessel, opening in Three Cells, which are filled with triangular Seeds. It flowers in *May*, and the Seeds ripen in *August*.

This Plant was raised from Seeds which came from the *Cape of Good Hope*, in the Year 1751, and hath flowered the Two last Years in the *Chelsea-Garden*, where it hath perfected Seeds. It requires to be sheltered from the Frost in Winter; therefore if these are placed under an Hot-bed Frame in Autumn, and in mild Weather the Glasses kept off, that the Plants may have as much free Air as possible, they will thrive much better than in a Green-house; but in frosty Weather the Glasses must be covered with Mats, to prevent the Cold from penetrating, which would destroy the Roots; for they begin to put out their Leaves in *October*, which continue growing all the Winter; and in *July* their Leaves decay, so that the Roots may be removed in *August*, after the Seeds are ripe. They may be kept out of the Ground till the Beginning of *October*, when they should be planted in Pots, filled with light sandy Earth, and may be exposed to the open Air, until there is Danger of Frost, when they should be removed into Shelter. As these Roots are small, so they must not be planted in large Pots; for in such they will not thrive. The largest Roots should have a Penny-pot, and the smaller a Three-farthing, and the least a Half-penny-pot; so that a Frame of Three Lights will contain many of these Pots.

PLATE XLI.

Anthyllis, *Lin. Gen.* 773. *Raii Meth. Plant.* 105. *Vulneraria, Tourn. Inst. R. H.* 391. *Tab.* 211.

Woundwort, Kidney Vetch, or *Bladder-Pea*.

THIS Genus of Plants is, by Doctor *Linnæus*, ranged in his Seventeenth Class, intituled, *Diadelphia Decandria*, the Flower having Ten Stamina, Nine of which are joined together, and the other stands separate, so as to form Two Bodies. To this Genus he has joined the *Barba Jovis Erinacea*, and one Species of *Cytisus*. Doctor *Tournefort* places it in his Tenth Class of Plants, with a papilionaceous Flower of several Leaves, whose Pointal changes to a short Pod of One Cell. Mr. *Ray* places it in his Twenty-first Class of Plants, with papilionaceous or leguminous Flowers, with irregular pennated Leaves. The Title *Vulneraria* was applied

applied to one Species of this Genus, by *John Baubin*, and some other old Writers on Botany, for the supposed Virtues of the Plant in healing Wounds; but that of *Anthyllis* was more generally applied by the oldest Authors; so Doctor *Linnæus* hath adopted this Name, and rejected the other.

The Species here represented are,

Fig. 1. Anthyllis *herbacea foliis quaterno-pinnatis, floribus lateralibus, Hort. Upsal.* 221. Woundwort, Bladder-Pea, or Kidney-Vetch of *Spain*. *Tournefort* calls it, *Vulneraria pentaphyllos, Inst. R. H.* 391. and *Caspar Baubin* titles it, *Lotus pentaphyllos vesicaria, Pin.* 322. and *John Baubin, Trifolium halicacabum sive vesicarium, Hist.* 2, 361. *a*, represents a Flower just opened on the Plant. *b*, is a single Flower inclosed in the swelling Empalement. *c*, is the upper Lid, or Standard of the Flower. *d*, the trifid Style. *e*, one of the Stamina separated from the Body. This is the Fourth Sort of *Vulneraria* in the *Gardener's Dictionary*.

This Plant grows naturally in the South of *France, Spain, Portugal, Italy*, and other warm Countries, where it is a Weed in their Arable Land. The Root is annual, but if the Seeds are permitted to scatter on the Ground, the Plants will come up with the first Warmth of Spring; and as their Branches spread wide, trailing on the Ground, they become troublesome Weeds, if they are permitted to grow large. The Flowers are produced in Bunches, at the Joints from the Wings of the Leaves; but as they have little Beauty, the Plants are seldom permitted to have a Place, except in Botanic Gardens, for the Sake of Variety. It flowers in *July*, and the Seeds ripen in *September*; which, if permitted to scatter, the Plants will come up the following Spring, without any Care.

Fig. 2. Anthyllis *fruticosa, foliis pinnatis æqualibus, floribus capitatis, Hort. Cliff.* 371. Shrubby Kidney-Vetch, with equal pinnated Leaves, and Flowers growing in Heads, commonly called *Barba Jovis*, or *Silver Bush*. This is the *Barba Jovis pulchre lucens, J. B.* 1. 385. and *Barba Jovis, C. B. P.* 397. Jupiter's Beard, or Silver Bush, so called from the Whiteness of the Leaves. This is the first Sort of *Barba Jovis* in the *Gardener's Dictionary*. This grows naturally in the South of *France*, in *Spain*, *Portugal*, and *Italy*, where it rises to the Height of Eight or Ten Feet, with many woody Branches, which are garnished with silvery winged Leaves, which abide through the Year. The Flowers are produced in the Spring, at the Extremity of the Branches, growing in Clusters or Heads, and are white. These are succeeded by short Pods, in each of which there are generally Two Seeds. They ripen in *July*, in the natural Places of its Growth; but in *England* the Seeds rarely come to Maturity. It is preserved in many curious Gardens, for Variety, and is removed into the Green-house in Winter, being too tender to live Abroad through the Winter in *England*; but it should have as much free Air as possible in mild Weather, otherwise the Branches will draw, and become weak, so will not produce Flowers; nor do the Plants make a good Appearance when they are weak. In *England* these Plants flower about the End of *May*, or the Beginning of *June*.

PLATE XLII.

Antirrhinum. *Tourn. Inst. R. H.* 167. *Tab.* 75. *Raii Meth. Plant.* 90. *Lin. Gen. Plant.* 668.

Snap-Dragon, *or* Calves-Snout.

THIS is ranged in the Fourth Section of *Tournefort*'s Third Class of Plants, intituled, *Herbs with an anomalous, fistulous, and personated Flower of One Leaf*. Mr. *Ray* places it in the Second Division of his Nineteenth Class, intituled, *Vasculiferous Herbs, with an irregular or Lip-Flower*. Doctor *Linnæus* places it in his Fourteenth Class of Plants, which he titles *Didynamia Angiospermia*. And to this Genus he adds the *Linaria*, or *Toad-flax*, the *Asarina* of *Tournefort*, and *Elatine* of *Dillenius*. But in this, I think, he will not be followed by many Botanists; for in adding so many Plants to the Genus, it rather occasions Confusion, than helps the Learner; and as there is so good a Distinction between *Linaria* and *Antirrhinum*, as in the former there is a Heel or Spur to the Flower, which is wanting in the latter; and this is so visible at the first View, as not to escape the Notice of a common Observer, therefore should not be rejected. Beside, there is a remarkable Difference in the *Nectarium* of the Flowers, as also in their Seed-vessels, which are sufficient to separate them into Two Genera.

The Species here represented is,

Antirrhinum *majus alterum folio longiore, Camer. C. B. P.* 211. Another larger Snap-Dragon, with a longer Leaf. Of this Sort there are many Varieties, which differ in the Colour of their Flowers; some are almost white, others yellow, and red, and in some the Flowers have a red or purple Flower, with yellow or white Edges. But all these Varieties will arise from the Seeds of any of them; so that they must not be accounted distinct Species. But Doctor *Linnæus* has allowed but Three Species of this Genus, including the wild Sort; whereas there are Four distinct Species of the Garden-kind, which always preserve their Differences from Seed.

a, represents the Flower growing on the Spike. *b*, is a Flower split open, shewing the Four Stamina. *c*, are the Four Stamina taken out of the Flower, Two of which are longer than the other Two. *d*, is the Seed-vessel. The Three first Sorts in the *Gardener's Dictionary* are Varieties of this Species. When these Plants are set in good Ground, they grow very large and rank; but in poor Ground, or upon old Walls or Buildings, they do not come to half that Size; so that they may be supposed different Plants; but when the Seeds of those on the Walls fall down upon the Borders in the Garden, the Plants will then put on a different Appearance. When these Plants grow upon Walls, or in Rubbish, their Branches will not be so succulent as those which grow in good Ground, so they will resist the Frost much better, and will abide much longer; for when they grow very rank, they seldom live longer than One Year; whereas the other upon Walls will abide many Years.

PLATE XLIII.

APHACA, *Tourn. Inst. R. H.* 399. *Tab.* 223. *Raii Meth.* 103. *Lathyrus, Lin. Gen.* 781.

THIS Plant is ranged in the Second Section of *Tournefort's* Twelfth Class, intituled, *Herbs with a Pea-flower, whose Pointal turns into a long unicapsular Pod.* Mr. *Ray* places it in his Twenty-first Class of Plants, with a leguminose Flower, having single Leaves, and smooth Pods. Doctor *Linnæus* ranges it in his Seventeenth Class of Plants, intituled, *Diadelphia decandria*, joining this to the *Lathyrus* and *Clymenum* of *Tournefort*; but as it is very difficult to distinguish the Plants of this Class, without taking the Order of their Leaves and Tendrils to our Assistance, as *Tournefort* and *Ray* have done, so if we do, we must separate this Genus from the *Lathyrus* and *Clymenum*, as this hath single Leaves, and the Tendrils proceeding from the Joints of the Stalk between the Leaves which grow opposite.

The Characters of this Genus are exhibited in the *Gardener's Dictionary.*

There is but one Species of this Genus at present known, which is here represented, *viz.*

APHACA, *Lob. Icon.* 70. Yellow Vetchling.

a, represents a single Flower, which is of the Pea-bloom kind. *b b*, the Empalement of the Flower, which is divided into Five Parts. *c c*, the Pointal, which afterward becomes the Pod. *d*, the Pod intire. *e*, the Pod opened, shewing how the Seeds are ranged.

This Plant is, by *Caspar Bauhin*, tituled, *Vicia lutea, foliis convolvuli minoris, Pin.* 345. and by *John Bauhin*, *Vicia quæ Pitine Anguillaræ lata siliqua flore luteo, J. B.* 2. *p.* 316. There is another Variety of this Plant mentioned by *Tournefort*, in his Institutions of Botany, with a white Flower striped with black; but this is only a seminal Variation, which doth not continue, but changes to yellow when sown.

The *Aphaca* is found growing wild in several Parts of *England*, chiefly in the Fields which are sown with *Wheat* and *Rye*, or such other things as are sown in Autumn; for if the Seeds of this Plant are sown in the Spring, they seldom grow the first Year; which is the Reason of its being rarely found in such Fields as are ploughed and sown in the Spring. This is a trailing Plant: it grows about Two Feet high, fastening itself by the Tendrils, to whatever Plants grow near it; and where there happens to be no Support near, the Branches trail upon the Ground. The Flowers are produced in *June* and *July*, and the Seeds ripen in *August*; which if permitted to scatter, the Plants will come up better than when they are sown with Care.

There is little Beauty in the Flowers of this Plant to recommend it; but as there is a natural Looseness in the trailing Branches, which renders it proper for Ornaments in Needle-work, or for printing on Linens, so we judged it might prove acceptable to such Persons who are employed in either of those Branches.

PLATE XLIV.

APOCYNUM, *Raii Meth. Plant.* 78. *C. B. P.* 302. *Tourn. Inst. R. H.* 91. *Tab.* 20. *Lin. Gen. Plant.* 269.

DOGS-BANE; in *French* Apocin.

THIS Genus of Plants is, by Mr. *Ray*, placed in his Eighteenth Class, intituled, Herbs with many Seed-vessels succeeding each Flower. Doctor *Tournefort* ranges it in his First Class of Plants, with a monopetalous Bell-shaped Flower, whose Pointal changes into a Fruit composed of several Sheaths, or Husks. Doctor *Linnæus* places it in the Second Division of his Fifth Class of Plants, intituled, *Pentandria Digynia.*

The Characters of this Genus are exhibited in the *Gardener's Dictionary.*

The Species here represented are,

Fig. 1. APOCYNUM *scandens foliis oblongis acuminatis floribus amplis patulis & luteis, Houst. Mans.* Climbing Dogs-bane, with oblong pointed Leaves, and large yellow spreading Flowers.

Fig. 2. APOCYNUM *scandens amplo flore villoso luteo siliquis tumidis angulosis glabris, Houst. Mans.* Climbing Apocynum, with a large yellow hairy Flower, and a smooth angular swelling Fruit.

a, represents the Front of the Flower spread open. *b*, the hinder Part of the Flower, shewing the Cup, which is divided into Five Parts. *c*, the angular swelling Seed-vessel. *d*, one of the Seeds taken out of the Pod, with the Down adhering to it.

These Two Plants were discovered by the late Doctor *William Houstoun*, at *Vera Cruz*, in *New Spain*, in the Year 1729, and the Seeds of both Sorts he sent to *England*, where many of the Plants were raised in some of the curious Gardens; but as they grew too high for the Stoves which were then built, and being too tender to live thro' the Winter in *England*, without artificial Heat, so they perished before they perfected any Seeds. The first Sort produced Flowers in the *Chelsea-Garden*; but the second Sort grew so luxuriantly, as to spread over all the Plants which grew near it, and had no Appearance of flowering.

In the native Country of their Growth, these Plants are generally found in Woods, where they twist themselves about the neighbouring Trees, and climb to the Height of Thirty or Forty Feet. They produce their Flowers in *July*, and their Seeds ripen in *January* following.

The

The Figures of both these Plants were drawn by Doctor *Houstoun*, on the Spot where he discovered them; and were sent to me, with their Description, after the Doctor's Death, as he had bequeathed me all his Papers, Drawings, and Collection of dried Plants.

PLATE XLV.

APOCYNUM *erectum, Africanum, villoso fructu, salicis folio lato subhirsuto, Par. Bat.* 24.

Upright African Dogs-bane, with a hairy Fruit, and broad hairy Willow Leaves.

a, represents a single Flower, whose Petals are fallen, and the Five-cornered Nectarium open. *b*, shews the hinder Part of the Flower, with the Empalement. *c*, the Pointal of the Flower, which rises between the five-cornered Nectarium, which afterward begins to form the Pod, as at *d*. *e*, is the Pod full-grown and intire. *f*, the Pod opening, shewing how the Seeds are ranged over each other. *g*, a single Seed without its Down.

THE Seeds of this Plant were sent me from the *Cape of Good Hope*, in the Year 1752; from which I raised several Plants, which have since flowered, and perfected their Seeds, in the *Chelsea-Garden*. It is a Shrub, rising about Five or Six Feet high, dividing into several spreading Branches, which are garnished with Leaves, placed irregularly, being sometimes opposite, and often growing alternate, and frequently Three Leaves coming out round the Stalk, as if they arose from the same Joint. The Leaves are about Three Inches long, and half an Inch broad in the Middle, and are hairy. The Flowers are produced in Bunches which come out from the Branches, by the Foot-stalks of the Leaves, and are of a whitish Colour, a little inclining to purple. These are of One Leaf, cut into Five Parts, and stand on a pretty long Foot-stalks. The Flowers are succeeded by roundish swelling Pods, which are beset with Hairs; and when ripe do open lengthwise, and disclose the Seeds, which are placed *imbricatim*, like Slates upon Buildings, each having a Plume of soft Down adhering to the upper-part, which help to disperse the Seeds to a great Distance.

There are Two other Species of this Plant, which approach near to this; and Doctor *Linnæus* hath supposed them to be only seminal Varieties, so makes them the same; but as they do not vary when raised from Seeds, so they may with Certainty be deemed distinct Species. The Two other are, the broad and narrow smooth Willow-leav'd Dogs-bane. These Two differ from each other only in the Breadth of their Leaves; the latter having pointed Leaves, whereas those of the former are more obtuse; and these Differences do constantly hold in the Plants which are raised from Seeds. The broad-leaved Sort is found growing naturally in *Spain*, as also in *Minorca*, from whence the Seeds have been sent to *England*. But it is also a Native at the *Cape of Good Hope*, from whence the Seeds were first brought to *Holland*; but the Sort here figured differs greatly from both those Species in the whole Habit of the Plant; for the Branches of this grow diffused, whereas the other grow erect; and there is a great Difference in their Pods, those of the other terminating in a sharp Point, whereas these are obtuse; and the Leaves of this are broader than either of the other, and are pointed and hairy; so there can be no Doubt of its being a distinct Species, especially as it always maintains this Difference when raised from Seeds.

These Three Sorts are propagated by Cuttings, which should lie a Day or Two to dry, after they are separated from the Plants; for as the Plants do abound with a milky Juice, so if the wounded Part be not dried before the Cuttings are planted, they are very subject to rot; as they also are, if they receive too much Wet; therefore the surest Way to propagate these by Cuttings, is to plant them in Pots, filled with light Earth, and to plunge the Pots into a moderate Hot-bed of Tanners-bark, giving them but little Water. This may be done in any of the Summer Months, and the Cuttings will put out Roots in a Month; when they must be exposed to the open Air, to harden them before Winter. The Plants do not require any Heat in Winter, so may be preserved in the Green-house, being careful that they have not too much Wet at that Season. They flower most Part of Summer, and the Seeds ripen late in the Autumn.

The Down, which adheres to all the Species of *Dogs-bane*, is very soft and elastic; so that if it be pressed close together, no sooner is the Weight removed from it, but it expands to its former Bulk. This is much used in *France* for stuffing of Cushions and Pillars, being extremely light and soft. It is there called *De la Wade*. In *England* it hath been used for Quilts, being very proper for Persons who are troubled with the Gout, who cannot bear any weighty Covering over them; this being very warm, yet so light as not to be felt, or occasion any Pain. But as this Down cannot be had in large Quantities from *English* Growth, so those Persons who are desirous to have it, must procure it from *America*, where several Species do grow in great Plenty.

PLATE



APHACA *Lob. Icon. 70*

Published according to Act by P. Miller Dec. 28th 1756



Fig. 1.
APOCYNUM scandens foliis oblongis acuminatis floribus amplis patulis ex luteis. Houst.

Fig. 2.
APOCYNUM scandens amplo flore villoso luteo siliquis tumidis angulosis glabris. Houst.

Houstoun delin. Published according to the Act by P. Miller Oct.r 10th 1755. J. Mynde sculp.



APOCYNUM *erectum, Africanum, villoso fructu salicis folio lato subhirsuto Par. Bat.*

Published according to Act of Parliament by ... Oct^r 28 1755. J. Jefferys sculp.



AQUIFOLIUM *sive Agrifolium vulgo J. B. 1. 114.*

Published according to the Act by P. Miller Oct. 28th 1755.

J. Jefferys sculp.



AQUILEGIA *pumila præcox Canadensis Cornut. Canad. 60.*

Miller Oct 28



Fig. 1 ARBUTUS *folio serrato flore oblongo fructu ovale* ...

Fig. 2 ARBUTUS *folio serrato c. b.*

PLATE XLVI.

AQUIFOLIUM, *Tourn. Inst. R. H.* 600. *Tab.* 371. *Agrifolium*, *Raii Meth. Plant.* 135. *Ilex*, *Lin. Gen. Plant.* 158.

HOLLY-TREE; in *French* HOUX.

THIS Genus of Plants is, by Doctor *Tournefort*, ranged in the Second Section of his Twentieth Class, intituled, *Trees and Shrubs with a Flower of One Leaf, whose Pointal changes to a Fruit having hard Seeds.* Mr. *Ray* places this Genus in his Third Division of *Trees and Shrubs bearing Berries which have Four Seeds in each.* Doctor *Linnæus* puts this Genus in his Fourth Class of Plants, intituled, *Tetrandria Tetragynia*, and has applied the Title of *Ilex* to it, which Name hath been, by most of the modern Writers on Botany, applied to the *Evergreen Oak*; but as that must be placed under *Quercus*, by every Writer on the Method of ranging Plants, as the Characters are the same with the Common *Oak*, so the Doctor may be better excused in applying this Title of *Ilex* to the *Holly*, than in many other Instances where he has changed the Names of Plants; because this of *Ilex* hath been applied by some of the old Writers on Botany to the *Holly*: but he is not so excuseable in joining to this Genus, the *Dodonæa* of *Plumier*, and the *Cassine*, neither of which do agree in their Characters with the *Holly*; for the *Dodonæa* hath a Funnel-shaped Flower divided at the Top into Three Parts, having but Three Stamina, which is succeeded by an oblong Fruit, having but One Seed; so that it should not be placed in this Class, but in his Third Class of Plants. The *Cassine* should also be placed in his Fifth Class of Plants, for the Flowers have each Five Stamina; so that it is plain the Doctor had not seen the Flowers of either of those Plants when he published the last Edition of his *Genera Plantarum*; nor is it to be supposed that he has seen the Plants either growing, or a Specimen of the *Cassine*: for he supposes that the ever-green Sort, whose Leaves are placed alternately on the Branches, to be the same Species as the *Daboon Holly*; whereas the Leaves, and whole Habit of the Plants are totally different. He also supposes the deciduous *Cassine*, whose Leaves grow opposite, to be the same with the *Phillyrea Capensis*, which is figured in the *Eltham-Garden*, which are as different as the former.

The Species here figured is,

AQUIFOLIUM *sive Agrifolium vulgo*, *J. B.* 1. 114. The Common Holly. This is, by *Caspar Baubin*, tituled, *Ilex aculeata baccifera, folio sinuato*, *Pin.* 425.

a, represents a single Flower, with its Four Stamina. *b*, the intire Berries. *c*, a Berry cut through, shewing the Four Seeds lodged in their separate Cells.

Doctor *Linnæus* titles this, *Ilex foliis ovatis acutis spinosis*, *Hort. Cliff.* 40. As there are some of these Plants which produce only male Flowers, which are not succeeded by Fruit, and others whose Flowers are hermaphrodite, and have Berries succeeding them; so this Genus, according to Doctor *Linnæus*'s System, should be placed in his Twenty-second Class of Plants, and in his Fourth Division, which he titles, *Dioecia Tetrandria*.

The Holly-Tree is so well known in *England* as to need no Description. It grows naturally in the Woods in many Parts of *England*. The usual Growth of these Trees is from Twenty to Thirty Feet high, though in some Places there are some of a greater Height; but the general Growth of them is not more than I have mentioned. They flower in *June*, and the Berries are ripe in Winter. These Berries, when sown, do very rarely grow the first Year; so they are generally buried one Year in the Ground, and taken up again in the Autumn, and sown: The Spring following the Plants will come up; so that there is one Year's weeding of the Beds saved by this Method; and the Seeds succeed much better than those which are sown the first Year.

The Holly being ever-green, has been long propagated in the Gardens for its Beauty, and was formerly in great Use for making Hedges: but since the old Method of clipp'd Hedges and shorn Trees hath been cast out of Gardens, the Holly has not been so much propagated. Though there are few Ever-greens of greater Beauty, where they are judiciously disposed. The Variety of variegated Hollies, which have been preserved in the *English* Gardens, greatly exceeded what could be found in any other Country; and for some Years were esteemed the greatest Ornaments of the *English* Gardens; so that in many of them, these Trees were so much crouded, as to leave little Room for other Plants; but since the Alteration of the *English* Taste, they have been almost totally rooted out. Yet, when these Trees are properly disposed in Gardens, and permitted to have their natural Shape, they are very ornamental in the Winter-Season.

From the Bark of the *Holly* is made *Birdlime*, and the Wood is used by the Turners for many of their Wares, being very hard and white, and polishes very smooth.

PLATE XLVII.

AQUILEGIA, *Tourn. Inst. R. H.* 428. *Tab.* 242. *Raii Meth. Plant.* 79. *Lin. Gen. Plant.* 605.

COLUMBINE; in *French* ANCHOLIE.

THIS Genus of Plants is, by Doctor *Tournefort*, placed in his Eleventh Class, intituled, *Herbs and Under-shrubs with a polypetalous anomalous Flower.* Mr. *Ray* ranges it in his Eighteenth Class of Plants with irregular Flowers, which are succeeded by many Pods. Doctor *Linnæus* places it in his Fifth Division of the Thirteenth Class of Plants, intituled, *Polyandria Pentagynia*; the Flowers having many Stamina, and Five Germina.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The

The Species here represented is,

Aquilegia pumila præcox Canadensis, Cornut. Canad. 60. Early dwarf Columbine of Canada. a, shews the Flower, as it is divided into Five Parts next the Foot-stalk. b, the Number of Stamina, which stretch out beyond the Corolla. c, the Seed-vessel, which is composed of five Cells, each terminating with a crooked Tail. This is the Sixth Species mentioned in the Gardener's Dictionary. By Doctor Linnæus it is titled, Aquilegia nectariis rectis, staminibus corolla longioribus, Hort. Upsal. 153.

Doctor Tournefort enumerates Thirty-nine Varieties of Columbine; but these are all reduced to Three Species by Doctor Linnæus, which is too small in Number; for although the various Colours of their Flowers should not be admitted as Differences, yet the Structure of their Flowers may be allowed to distinguish the Species; therefore those which are usually termed the Starry Columbine, must be distinguished from those called the Rose Columbine: and there are three other which are as distinct, mentioned by Tournefort, exclusive of this. And there is another Variety of this, mentioned in the Catalogue of the King's Garden at Paris, under the Title of Aquilegia Canadensis præcox precocior: but I doubt of their being different Species; for from the same Seeds I have had Plants which grew not more than One Foot high, and others have been near double that Height; so that I suspect it may be owing to the Soil and Situation of the Plants, that this Difference in their Growth is occasioned, for I have not observed any Difference in their Leaves or Flowers. This Plant flowers in April, and the Seeds ripen in August. It grows naturally in Canada, Virginia, and most of the Northern Parts of America, from whence the Seeds have been sent to Europe.

PLATE XLVIII.

Arbutus, Tourn. Inst. R. H. 598. Tab. 368. Raii Method. Plant. 155. Lin. Gen. Plant. 488.

The Strawberry-Tree; *in French* Arbousier.

THIS Genus of Plants is ranged, by Doctor *Tournefort*, in his Twentieth Class, intituled, *Trees and Shrubs with a monopetalous Flower, whose Pointal becomes a soft Fruit, filled with hard Seeds*. Mr. *Ray* places it among the Trees bearing Berries, including several Seeds; and Doctor *Linnæus* ranges it in his Tenth Class of Plants, intituled, *Decandria Monogynia*; the Flower having Ten Stamina, and One Germen.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The Species here represented are,

Fig. 1. Arbutus *folio serrato, flore oblongo, fructu ovato, Michel. Hort. Pis.* The Strawberry-Tree with a sawed Leaf, an oblong Flower, and oval Fruit. *a*, shews the oblong Pitcher shaped Flower. *b*, the oval Fruit. *c*, the Fruit cut transversely, shewing the Five Cells in which the Seeds are lodged. *d*, the Fruit cut longitudinally. the Seed taken out of the Cell. *f*, the Style which is stretched out at the End of the Fruit.

Fig. 2. Arbutus *folio serrato, C. B. P.* 460. Strawberry-Tree with a sawed Leaf, and round Fruit.

It is not certain if these are distinct Species, or only Varieties which arise from the same Seeds; however, as there is so great Difference in the Flowers and Fruit of these Trees, so we have exhibited the Two Sorts as they are generally termed by the Gardeners. I have also observed, that where these have stood near each other, in the same Soil and Exposure, that the Sort with round Fruit has been the most plentiful Bearer.

These Trees grow naturally upon the Hills in *Italy* and *Spain*, as also in the western Part of *Ireland*. They rise to the Height of Twenty or Thirty Feet, but do rarely rise with an upright Stem, usually dividing into many Stems near the Ground, which put out, on every Side, Branches, which are garnished with oblong sawed Leaves, of a bright green, and are stiff. These abide all the Winter, and are thrust off in the Spring by the new ones; so that it is always cloathed with Leaves. The Flowers appear in *September* and *October*; soon after which time, the Fruit, which succeeded the Flowers of the former Year, are ripe; for they are at least a Year from the flowering to the ripening of the Fruit.

PLATE

PLATE XLIX.

ARCTOTIS, *Lin. Gen. Plant.* 886. *Arctotheca*, *Vaill. Ac. R. Scien.* 1720. *Anemonospermos*, *Herm. Cat. Com. Hort. Amst.* 2. p. 45.

We have no *English* Name for this Genus of Plants.

THIS Genus of Plants is by Doctor *Linnæus* ranged in his Nineteenth Class, intituled, *Syngenesia Polygamia necessaria*; the hermaphrodite Flowers in each Empalement being abortive, the Female Flowers only having Seeds succeed them. *Vaillant*, in the Memoirs of the Academy of Sciences for 1720, ranges this Genus in his Class of corymbiferous Plants with radiated Flowers; and Doctor *Boerhaave* places it in his Class, intituled, *Gymnomonosperma disci flore*. Doctor *Herman* gave the Title of *Anemonospermos* to this Genus, from the Character of the Seeds, which are surrounded with a Down, like those of the *Anemone*; and *Vaillant* gave it the Title of *Arctotheca*, from the Sheath or Cover of the Seeds being hairy like a Bear; and the *French* Name which he adds to it *Ourse*. The other Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The Species here represented is,

ARCTOTIS *ramis decumbentibus, foliis lineari-lanceolatis rigidis subtus argenteis, flore magno aureo, pediculo longissimo*. i. e. *Arctotis* with trailing Branches, narrow stiff Leaves, white on their Under-side, and a large golden Flower standing on a long Foot-stalk.

This Plant has been lately introduced into the Gardens from the *Cape of Good Hope*, where all the Species of this Genus do naturally grow: But this Sort hath by much the most specious Flower of any yet discovered. I received this Plant from Doctor *Adrian Van Royen*, the late Professor of Botany in *Leyden*; and have since distributed it to many curious Persons in *England*. The Branches of this Plant are woody, and spread themselves flat on the Surface of the Ground. These are garnished with Leaves, which come out in no regular Order, but are placed on every Side the Branches. They are about Four Inches long, and about half an Inch broad toward the End where they are broadest, with one longitudinal Rib in the Middle; the Upper-side being of a dark-green Colour, and smooth; but the Under-side is very white. They are stiff, and for the most part entire; but some few are cut in on their Sides into Three Parts, and others into Five, as they are represented in the Figure. From between the Leaves the Foot-stalk of the Flower arises, which is near Six Inches long, having on the Top One large Flower, whose Rays are of a gold Colour within, but of a pale yellow on the Outside: At the Base of the Rays there is a beautiful Circle of black chequered with white; and the Disk within the Circle is of the same Colour with the Rays. These Flowers are produced in *May* and *June*; but they are not succeeded by any more till the next Season; whereas most of the other Species of this Genus are seldom destitute of Flowers, except in the Middle of Winter. This Sort produces no Seeds in *England*; but it is very easily propagated by Cuttings; which if planted in any of the Summer Months, and placed upon an old Hot-bed, shading them from the Sun in the Middle of the Day, they will take root in Five or Six Weeks; when they should be exposed to the open Air, that they may not be drawn up weak; for the more the Plants are exposed to the open Air, the better they will flower; but in the Winter they must be protected from Frost; so that if the Pots are placed under an Hot-bed Frame in Autumn, where in mild Weather they may enjoy the free Air, and in the Nights, or when it is cold, they may be cover'd with the Glasses and Mats to screen them from Frost, they will thrive and flower better than when they are more tenderly managed. In Summer they must be placed in the open Air, with other exotic Plants from the same Country, where they will make a fine Appearance during their Season of flowering. As the old Plants are subject to rot in Winter, therefore there should be a Supply of young ones raised from time to time to succeed them; for the young Plants will flower better, and make a finer Appearance than the old.

This is the last Sort mentioned in the *Gardener's Dictionary*. At the time when the last Edition of that was printed, this Plant had been but lately introduced into *England*; so the Culture of it was not so well known as at present; therefore I have inserted it here.

PLATE L.

ARGEMONE, *Tourn. Inst. R. H.* 239. *Tab.* 121. *Lin. Gen. Plant.* 574.

THIS Plant is ranged in the Second Section of *Tournefort*'s Sixth Class, intituled, *Herbs with a Rose-shaped Flower, whose Pointal or Empalement turns to a Fruit with one Cell*. Doctor *Linnæus* places it in his Thirteenth Class, intituled, *Polyandria Monogynia*; the Flower having many Stamina, and One Germen. In *English* it is called PRICKLY POPPY.

There is but one Species of this Genus, which is here represented; *viz.*

ARGEMONE *Mexicana*, *Inst. R. H.* 239. *Mexican* Prickly Poppy.

This is by the Two *Bauhins* called *Papaver spinosum*, *Pin.* 172. *Prod.* 92. *J. B.* 3. 397. Doctor *Morison*, in his *History of Plants*, 2. p. 277, intitles it *Papaver spinosum luteum, foliis albis venis notatis*. Doctor *Linnæus* has added Two other Species to this Genus, which Doctor

Doctor *Tournefort* placed under *Papaver*; to which Genus they more properly belong, as they agree in their Character with the *Welch Poppy*, which is continued under the Genus of Poppy by Doctor *Linnæus*: And this Species he titles *Argemone capsulis quinquevalvibus foliis spinosis, Spec. Plant.* 508. *a*, shews the Flower, with the Stamina in the Centre, surrounding the Germen; *b*, the Seed-vessel, opening at the Top; *c*, the Seeds taken out of the Capsule.

The Seeds of this Plant were brought from *America*, by the Title of *Figo del inferno*, or *Ficus infernalis*, the Infernal Fig; supposed to be so called from a Resemblance between the Seed-vessel of this Plant and the Fig; but being closely beset with Prickles, it may have endangered the Lives of some ignorant Persons, who have attempted to eat it. The whole Plant abounds with a yellow Juice, like the *Celandine*, which flows out on the Plant's being broken or wounded. The Seeds of this Plant are used in the *West-Indies* to purge; and the Juice of it is esteemed good for sore Eyes. It is used for many Disorders in the *West-Indies*; but in *Europe*, I believe, it is not used in Medicine.

This Plant grows naturally all over the *West-Indies*, where it is a very troublesome Weed in all the cultivated Lands; for if a few Plants are suffered to scatter their Seeds, they will sufficiently stock the Ground. And in those Gardens in *England*, where this Plant hath been once, the Seeds have fallen, and the Plants have in many Places become troublesome to root out again.

PLATE LI.

ARISTOLOCHIA, *Tourn. Inst. R. H.* 162. *Tab.* 71. *Raii Meth. Plant.* 89. *Lin. Gen. Plant.* 911.

BIRTHWORT.

TOurnefort places this Genus in the Second Section of his Third Class of Plants, intituled, *Herbs with anomalous tubulous Flowers of One Leaf, ending in a Tongue.* Mr. *Ray* ranges it in the Second Section of his Nineteenth Class, which he titles, *Herbs bearing Pods, with an irregular difform Flower of One Leaf*: And Doctor *Linnæus* places it in his Twentieth Class of Plants, and in the Fifth Order; which he calls *Gynandria Hexandria*, from the Summits or Antheræ being joined to the Pointal.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The Species here represented are,

Fig. 1. ARISTOLOCHIA *clematitis recta, C. B. P.* 307. Upright climbing Birthwort. This is the *Aristolochia Saracenica* of *Dodonæus, Pemp.* 326. and *Aristolochia clematitis vulgaris* of *John Baubin, Hist.* 3. p. 560. Dr. *Linnæus* titles it *Aristolochia foliis cordatis, caule erecto, floribus axillaribus confertis, Hort. Upsal.* 279. *Spec. Plant.* 962. This is the Third Species enumerated in the *Gardener's Dictionary*. In *French* it is called *Aristoloche*.

Fig. 2. ARISTOLOCHIA *longa vera, C. B. P.* 307. The true long-rooted Birthwort; in *French*, *Aristoloche longue*. Doctor *Linnæus* title it, *Aristolochia foliis cordatis petiolatis integerrimis obtusiusculis, caule infirmo, floribus solitariis, Spec. Plant.* 962. This is the Second Species in the *Gardener's Dictionary*.

The First Sort is very common in the *English* Gardens. Where-ever it is once planted, it spreads so fast by its creeping Root, as to render it difficult to extirpate again; for the Roots will run Three or Four Feet deep in a light Soil; and if any Part of the Root is left in the Ground, it will shoot up again, and produce a great Number of Plants; and some of these Roots having been thrown out of Gardens, have spread themselves in Fields, and by the Side of Highways; so that some Persons have supposed this Plant to be a Native of *England*; but as it is never found remote from Gardens, it is certain that this is not the natural Place of its Growth; but was introduced from *France*, where it is found wild in the Fields. The other Sort grows naturally in the South of *France*, *Spain*, and *Italy*; from whence the Roots are brought to *England*, for medicinal Use.

PLATE LII.

ARUM, *Tourn. Inst. R. H.* 152. *Tab.* 69. *Raii Meth. Pl.* 74. *Lin. Gen. Plant.* 615.

WAKE-ROBIN, or CUCKOW-PINT.

DOctor *Tournefort* ranges this Genus of Plants in the First Section of his Third Class of Plants, intituled, *Herbs with an anomalous or cowlish Flower of One Leaf.* Mr. *Ray* places it in his Seventeenth Class of Plants, which he titles, [illegible]. Dr. *Linnæus* places it in his Seventh Division of his Twentieth Class of Plants, intituled, *Gynandria Polyandria*, from the Stamina being inserted in the Germen. The whole Structure of the Flower in this Genus is very singular.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The



ARCTOTIS *ramis decumbentibus foliis lineari lanceolatis rigidis subtus argenteis flore magno aureo, pediculo longissimo*

R. Lee ad. vivum   Published according to the Act by P. Miller Novem.r the 25th 1755



ARGEMONE.



Fig. 1 ARISTOLOCHIA *clematitis recta* C. B. P. 307
Fig. 2 ARISTOLOCHIA *longa vera* C. B. P. 307

delin. — Published according to the Act by P. Miller Nov.r 25th 1755. — sculp.



Fig. 1 ARUM vulgare non maculatum C.B.P. 195.

Fig. 2 ARUM Ægyptiacum humile latifolium pistillo purpureo

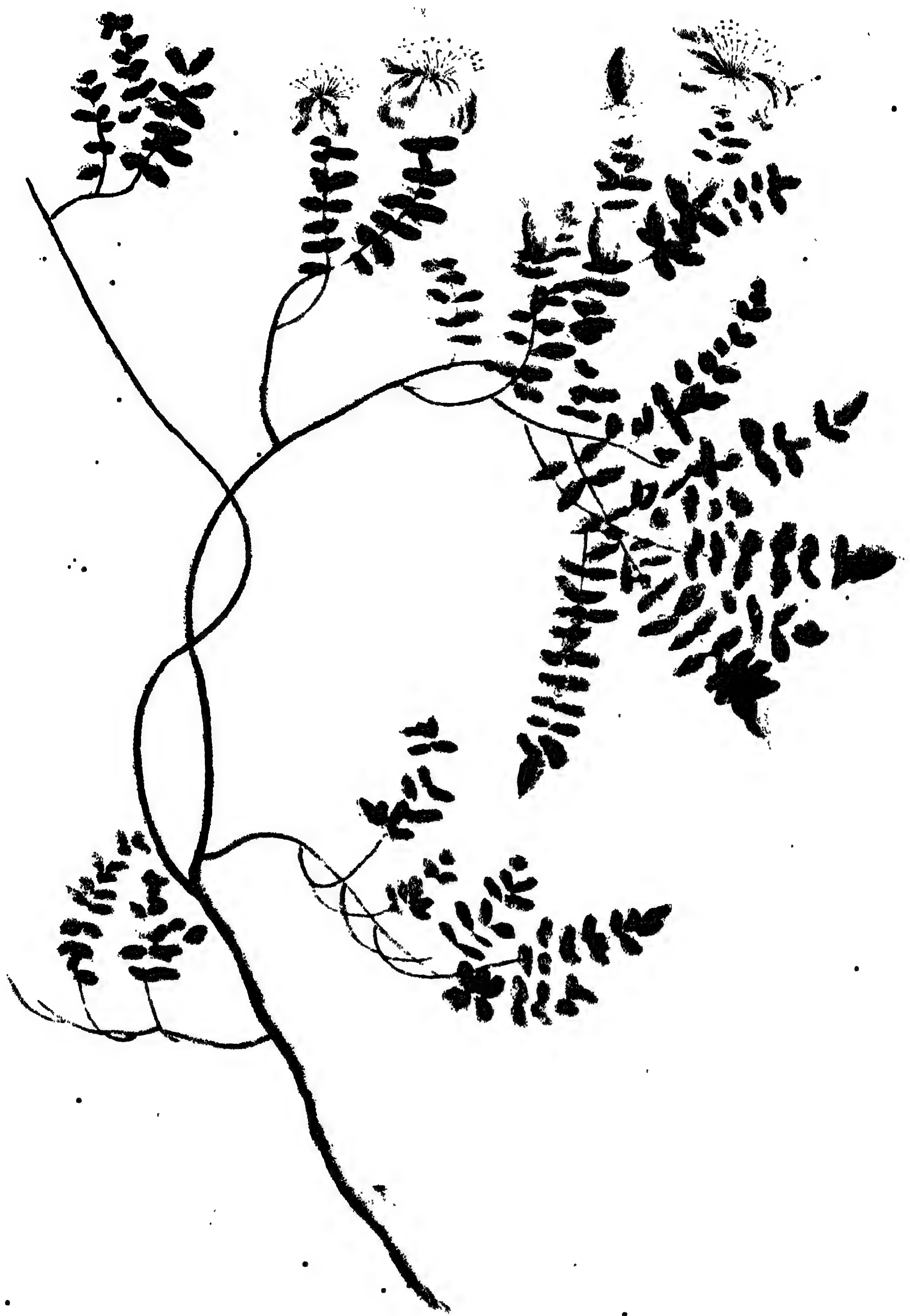
Published according to the Act by P. Miller Nov.r 15th 1755



Fig. 1. ASARUM Dod. pempt. 358

Fig. 2. ASCLEPIAS albo flore C. B. P. 303.

Publish'd according to the Act by P. Miller



The Species here represented are,

Fig. 1. ARUM *vulgare*, *Ger. Emac.* 834. Common Arum, Wake-Robin, or Cuckow-Pint. *a*, represents the Cowl, or Hood; *b*, the Pointal of the Flower, in which are inserted the Germen, with the Stamina collected, as it were, in a Body shaped like a Club.

This is the First Species mentioned in the *Gardener's Dictionary*. It grows naturally on the Sides of Banks, and in shady Places, in most Parts of *England*; therefore is not permitted to have a Place in Gardens; it flowers in *April*, and the Seeds are ripe in *July*, when they are of a deep Orange Colour. The Roots of this Plant are used in Medicine. They are full of Acrimony; so that if a Person taste it when it is in Vigour, it will bite the Tongue the whole Day; and in this Acrimony consists the Virtue of the Root; therefore those who make use of it should take up the Roots soon after the Seeds are ripe, when they are inactive and firm; and the Roots which are at that Season taken up, will retain their Pungency the whole Year; whereas those which are gathered in the Spring, when the Leaves are fresh, will shrink up in a few Days, and lose all their Virtue.

Fig. 2. ARUM *Ceylanicum humile latifolium, pistillo purpureo.* Broad-leav'd Dwarf Cuckow-Pint, with a purple Pistil. *a*, represents the Cowl of the Flower, which is always reflexed, and twisted at the Point like a Screw; *b*, the Pointal, which is long, slender, and of a deep purple Colour.

This Species approaches near to one which is figured by Doctor *Commelin*, in the *Hortus Amstelodamensis*; but the Leaves of his are not so much pointed, and have much longer Foot-stalks than this, and grow more erect. The Cowl of his Flower is also erect, and not pointed, or spread open, as this is; so we may determine them to be different Plants, tho' from the same Country: The Colour also of his Pointal is scarlet, and this is deep purple; but that would not be admitted as a specific Difference, was there not a manifest Difference in the Shape of the Leaves and Flower.

The Root of this Plant was brought from *Ceylon*, with some other Plants, in the Year 17[illegible]; but this was the only Plant which came alive in the Parcel: It has flowered the Two last Years in the *Chelsea* Garden. The usual Time of its flowering is in *April*; the Cowl of the Flower is about Six Inches long, but inclines toward the Ground, the long Point being always twisted like a Screw. The Inside of the Cowl is of a deep purple Colour; but the Outside is of an herbaceous green; the Pistil is long, slender, of a fine purple Colour, standing out of the Cowl, turning upward; the Flower hath a very fetid Scent, approaching to Carrion, or to that of the Flower of common *Dragon*. The Root is tuberous, like those of the common Arum. The Leaves of this Sort remain most Part of the Year. It is very tender, so requires to be kept in the Bark-stove, otherwise it will not live thro' the Winter in *England*.

PLATE LIII.

Fig. 1. ASARUM, *Tourn. Inst. R. H.* 501. *Tab.* 286. *Raii Meth. Plant.* 25. *Lin. Gen. Plant.* 522.

ASARABACCA, in *French*, CABARET.

Doctor *Tournefort* ranges this Plant in the First Section of his Fifteenth Class, intituled, *Herbs with a stamineous Flower, the hinder Part of whose Cup becomes the Capsule.* Mr. *Ray* places it in the [illegible] Class of Plants, with stamineous Flowers having no Petals, but the Calix surrounds the Stamina and Pointal. Doctor *Linnaeus* ranges it in his Eleventh Class, which includes those Plants which have from Eleven to Nineteen Stamina inclusive in their Flowers. He titles this Class *Dodecandria.*

The Species here represented are,

1. ASARUM, *Dod. Pemp.* 358. Common Asarabacca. By *Parkinson*, *Asarum vulgare.* Doctor *Linnaeus* titles it, *Asarum foliis reniformibus obtusis binis*, *Spec. Plant.* 442.

2. ASARUM, *Canadense Cornut.* 24. *Canada* Asarabacca. This Doctor *Linnaeus* titles, *Asarum foliis reniformibus mucronatis*, *Spec. Plant.* 442. And Doctor *Gronovius*, *Asarum foliis subcordatis petiolatis*, *Flor. Virg.* 52.

The first Sort is found growing naturally in some Parts of *England*, but very rarely; it is pretty much cultivated in the Gardens about *London*, where they propagate medicinal Plants for Sale. It is a very humble Plant, seldom rising more than Three Inches high; the Leaves and Flowers have short Foot-stalks, which rise immediately from the Root; so that the Flowers are seldom seen, unless look'd for between the Leaves. The Flowers are of an herbaceous Colour on the Outside; and within they are of a worn-out purple Colour; so they make but a small Appearance. The Time of their flowering is in *April* or *May*; but their Leaves remain thro' the Year. This Plant delights in a moist Soil, and a shady Situation. The Roots and Leaves of this Sort are used in Medicine, to purge off thick Phlegm, but particularly in the green Purges for Madness.

The other Sort differs from this, in having the Leaves more pointed, and being of a darker Green. This is a Native of *North America*, from whence it hath been brought to *Europe*; and is preserved in the Gardens of those Persons who are curious in collecting rare Plants. It will live in the open Air in *England*, being rarely hurt by Cold; but must have a shady Situation.

Fig. 2. ASCLEPIAS, *Tourn. Inst. R. H.* 93. *Tab.* 22. *Raii Meth. Plant.* 78. *Lin. Gen. Plant.* 270 Swallow-wort, or Tame Poison, in *French*, *Dompte-venin.* Dr. *Tournefort* places this Genus in the Fifth Section of his First Class of Plants, intituled, *Herbs with a Bell-shaped Flower of One Leaf, whose Pointal turns to a Fruit composed of several Husks or Sheaths.*

Mr. *Ray* ranges it in his Eighteenth Class of Plants with regular Flowers, which are each succeeded by Two Pods. Dr. *Linnaeus* places it in his Second Division of the

the Fifth Clafs of Plants, intituled, *Pentandria Digynia*; the Flowers having Five Stamina and Two Germina.

The Species here reprefented is,

Asclepias *albo flore*, *C. B. P.* 303. Swallow-wort with a white Flower. This is by *Dodonæus* called *Vincetoxicum*, *Pemp.* 407. By Dr. *Linnæus*, *Afclepias foliis ovalis bafi barbatis, caule erecto, umbellis proliferis, Spec. Plant.* 216. This Plant is found growing naturally in rough uncultivated Places in *France*, *Italy*, and *Germany*; and, being a medicinal Plant, is kept in the *Englifh* Gardens. The Root is perennial, but the Stalks die away every Autumn, and frefh Shoots are put out in the Spring; and in *June* the Flowers come out from the Joints toward the Upper-part of the Stalk, in fmall Umbels, upon flender Foot-ftalks, hanging downward. The Flower is compofed of One Leaf, deeply cut into Five Parts, as reprefented at *a*; thefe Flowers are fucceeded by long taper Pods, as at *b*; which are filled with flat Seeds, having a foft Plume or Down faftened to their Top, as reprefented at *c*. The Root of this Plant is fometimes ufed in Medicine; it is efteemed a good Counter-poifon; and alfo for malignant peftilential Fevers.

PLATE LIV.

Ascyrum, *Tourn. Inft. R. H.* 256. *Tab.* 131. *Raii Meth.* 109. *Hypericum, Lin. Gen.* 808.

St. Petersworts.

Doctor *Tournefort* ranges this Genus in his Sixth Clafs of Plants, intituled, *Herbs with a Rofe-flower, whofe Pointal turns to a Fruit with many Cells.* Mr. *Ray* places it in his Twenty-fecond Clafs of Plants, with Flowers of Five Leaves, which are fucceeded by Capfules filled with angular Seeds. Dr. *Linnæus* puts this Plant under the Genus of *Hypericum*; but *Tournefort* has feparated from that Genus this and Two other Species, becaufe they have a pyramidal Capfule with Five Cells; whereas the *Hypericum* hath an obtufe Capfule with but Three Cells; and *Linnæus* has given this Title to another Genus of *Tournefort*'s, called by him, *Hypericoides*.

The Species here reprefented is,

Ascyrum *Balearicum frutefcens, maximo flore luteo, foliis minoribus fubtus verrucofis, Salvad. Boerh. Ind. Alt.* 242. Shrubby St. Peterfwort, with a large yellow Flower, and fmall Leaves, which are warted. *a*, reprefents the Flower expanded; and *b*, the Stamina, which are fpread open every Way in the fame manner as the Petals. This Plant was difcovered in the *Balearic Iflands*, by Dr. *Penæ*, who fent it to *Lobel* and *Clufius*, in the Year 1580, from *Majorca*, by the Title of *Myrto-Ciftus*, from the Refemblance of the Leaves to Myrtle, and the Flowers to thofe of *Ciftus*. *Clufius* has given a Figure of it in his Hiftory of Plants, which is but indifferent; but from that Time, till about the Year 1714, this Plant was unknown to all the Botanifts, otherwife than by the Figure and Defcription given of it by *Clufius*; not any of them having feen the Plant, till Mr. *Salvadore*, an Apothecary at *Barcelona*, who was a very expert Botanift, went into that Ifland, in fearch of Plants, where he found this growing in Plenty; and fent dried Samples of it to fome of his Correfpondents in *England* and *Holland*; fome of which having ripe Seeds upon them, they were taken off and fown; and from thefe, One Plant was raifed in the *Chelfea* Garden, and another by Dr. *Boerhaave* at *Leyden*, in the Year 1717. From thefe many Plants were raifed from Cuttings, and diftributed to moft of the curious Gardens in *Europe*. It feldom grows much more than Two Feet high in *England*, fpreading out its Branches on every Side, fo as to form a bufhy Head. At the Extremity of the Branches the Flowers are produced, which are of a fine yellow, tinged a little with a gold Colour, which fades off after the Flowers have been long open. Thefe Plants are feldom deftitute of Flowers, which renders them the more valuable. They will not live in the open Air thro' the Winter in *England*; therefore they muft be kept in Pots, and placed in a common Greenhoufe; where, if they have not too much Wet in Winter, they will thrive, and continue flowering moft Part of the Year.

Dr. *Linnæus* titles this Plant, *Hypericum floribus pentagynis, caule fruticofo, foliis ramifque cicatrifatis, Spec. Pl.* 783.

PLATE LV.

Asparagus, *Tourn. Inst. R. H.* 300. *Tab.* 154. *Raii Method. Plant.* 75. *Lin. Gen. Plant.* 382. Asparagus, Sparagus, or Speerage, corruptly called *Sparrow-Grass.* In *French*, *Asperges.*

THIS Genus of Plants is by Doctor *Tournefort* ranged in the Eighth Section of his Sixth Class, intituled, *Herbs with a Rose-shaped Flower, whose Pointal, or Empalement, turns to a soft Fruit.* Mr. *Ray* places it in his Seventeenth Class of Plants, which includes the Herbs bearing Berries: And Dr. *Linnæus* ranges it in his Sixth Class of Plants, intituled, *Hexandria Monogynia*, i. e. Plants whose Flowers have Six Stamina and One Pointal.

The Species here represented is,

Fig. 1. Asparagus *sativa*, *C. B. P.* 489. Common cultivated Asparagus. This is the *Asparagus Hortensis* of *Dodonæus, Pemp.* 703. and the *Asparagus Hortensis & Pratensis* of *John Bauhin, Hist. Vol.* 3. 275. Garden Asparagus. Dr. *Linnæus* titles it *Asparagus caule herbaceo erecto, foliis setaceis stipulis paribus, Flor. Suec.* 272.

This is the Sort which is commonly cultivated in the Gardens, and is one of the most delicate Products of the Kitchen-Garden; therefore is well known to most Persons in the State when it is proper for the Table: [illegible] after the Shoots have advanced so far as to produce [illegible] and Seeds, it is not so generally known; [illegible] it might not be disagreeable to the [illegible] to give a Representation of it here [illegible] represents the Bell-shaped Flower consisting of One Leaf; *b*, the [illegible] Seeds taken out of the [illegible] Species enumerated in the *Gard*[illegible]

The other Characters of this Genus are exhibited in the *Gardener's Dictionary.*

There has been great Doubt among the Botanists, if the Wild and Garden Asparagus were the same Species; some having supposed they were, and only differed by Culture; while others have affirmed that they were specifically different. But having made the Experiment by Sowing of the Seeds of the Wild Sort in the Garden, I found no other Difference between them than in the Size of the Shoots, those of the Garden being larger; but the Wild Sort shot up earlier in the Spring, when it was growing in the same Situation with the Garden. The Shoots were equally well-tasted; and, by saving Seeds from some of the largest Shoots of the Wild Sort, the Plants, which were raised from those Seeds, produced Shoots almost equal in Size to any of the Garden Asparagus: Therefore I make no doubt but the Third Generation would have been full as large; but this I had no Opportunity of trying.

There are Three Sorts of this mentioned by *Caspar Bauhin*, Mr. *Ray*, *Tournefort*, and other Authors; *viz.* 1. The Garden, or cultivated. 2. The narrow-leaved Wild. 3. The maritime Sort, with thick Leaves. But I believe these only differ accidentally, from Culture, or Soil; for I have seen some of the Third Sort, which was cultivated in a Garden in *Wales*, from the Seeds gathered near the Sea, which did not differ from the common; yet Dr. *Magnol*, and some others, have supposed it to be a different Species, because the tender Buds of it were bitter, and the Berries were larger: But whoever has been conversant with the Culture of Asparagus, must know that neither of these ought to be admitted to make a Difference; for from the same Root there has been cut Buds perfectly sweet, and very bitter; and, on the same Stalk, there have been frequently Berries of various Sizes; so that we may safely agree with Mr. *Ray* and *Caspar Bauhin* to pronounce them to be only accidental Variations, produced from the Soil and Situation.

It grows wild in *Lincolnshire*, *Essex*, and *Cornwall*, in the Meadows near the Sea. The tender Buds of the Garden Asparagus are boiled and eaten in the Winter and Spring; and the Roots and Seeds are used in Medicine.

Fig. 2. Asperula, *Raii Meth. Plant.* 54. *Ger. Herb.* 966. *Park. Theat.* 563. *C. B. P.* 334. *Lin. Gen. Plant.* 113. *Aparine, Tourn. Inst. R. H.* 114. *Tab.* 39. Woodroof, or Woodruff. In *French*, *Muguet.*

Mr. *Ray* ranges this Genus in his Twelfth Class of Plants, intituled, *Herbæ Stellatæ*, from the Leaves of all the Plants in this Class being placed round the Stalks at each Joint, pointing like the Rays of a Star.

Doctor *Linnæus* places it in his Fourth Class of Plants, titled, *Tetrandria Monogynia*; the Flowers having Four Stamina and One Germen. *Tournefort* has joined this Plant to the Genus of *Aparine*, or Goose-grass; making it a Species of that, which he ranges in the Ninth Section of his First Class, which he titles *Herbs* with a Bell-shaped Flower of One Leaf, whose Empalement turns to a Fruit having Two Seeds joined together.

Doctor *Linnæus* has made a Genus under this Title, and has added some Species of *Gallium* and *Rubia* to this Genus.

The Species here represented is,

Asperula, *sive Rubeola montana odora*, *C. B. P.* 334. Woodroof, or Woodruff. This is the *Asperula odorata, flore albo*, of *Dodonæus, Pemp.* 355. By *Parkinson* it is titled, *Asperula, aut Aspergula, odorata, Theat.* 563. Doctor *Linnæus* titles it, *Asperula foliis octonis lanceolatis, florum fasciculis pedunculatis, Flor. Suec.* 114. *Tournefort* puts it under *Aparine* by the following Title; *Aparine latifolia montana humilior, Inst. R. H.* 114. *a*, represents the Leaves growing in Whorles round the Stalks; *b*, the Umbels of Flowers; *c*, a single Flower taken from the Umbel.

This Plant grows wild in shady Woods in many Parts of *England*, so is rarely kept in Gardens; but being used in Medicine, we have given a Figure of it. The Roots of this Plant do spread far in the Ground; so that where it has taken good Root, it will multiply fast enough by the Roots; but it doth not often produce Seeds; which is frequently the Case of many other Plants, which have creeping Roots. The Stems come immediately from the Root, and rise about Six Inches high. These are garnished with Leaves at every Joint, which are generally Six or Eight in Number. They are in Shape like those of the *Cliver* or *Goosegrass*, but smooth. The Flowers are produced at the Top of the Branches in Umbels, which are white, and have a sweet Scent. They come out in *April* and *May*, and in Autumn the Shoots die to the Ground.

PLATE LVI.

ASPHODELUS, *Tourn. Inst. R. H.* 343. *Tab.* 178. *Raii Meth. Plant.* 116. *C. B. P.* 28. *Lin. Gen. Plant.* 379. Asphodel, or King's-spear. In *French*, *Asfodele*.

DOctor *Tournefort* ranges this Genus of Plants in the First Section of his Ninth Class, intituled, *Herbs with a Lilly-flower of One Leaf, cut into Six Parts, whose Pointal turns to a Fruit*. Mr. *Ray* places it in his Twenty-third Class of Plants, which he titles *Herbs with Grass-leaves bearing Flowers, which have a tricapsular Seed-vessel*. Doctor *Linnæus* puts it in his Sixth Class of Plants, titled, *Hexandria Monogynia*, from the Flower having Six Stamina and One Style. And the essential Difference which he makes between this Genus and *Ornithogalum* is, that the Flower of this is of one Leaf, and those of *Ornithogalum* have Six. Mr. *Ray* makes One of its Characters to consist of the Roots which have many Tubers, or Fangs.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The Species here represented is,

ASPHODELUS, *foliis planis, caule ramoso, floribus sparsis*; i. e. Asphodel, or King's-spear, with broad plain Leaves, a branching Stalk, and Flowers placed thinly. *a*, represents the Flower, which is deeply cut into Six Parts; *b*, the Seed-vessel, which is divided into Three Cells.

This Plant was raised from Seeds in the *Chelsea* Garden, *Anno* 1751, where it produced Flowers the following Year. The Seeds came from the *Cape of Good Hope*, where this Plant naturally grows.

The Roots of this Plant are composed of many Tubers, or Fangs, each about the Size of a little Finger, toward the upper Part, where they are largest, and diminish gradually downward to the Size of a small Straw. These are joined together at the Crown (like the Roots of Asparagus), where the Buds are formed; from whence the Leaves are produced, which are generally Seven or Eight in Number, coming out without any Order. These are Nine or Ten Inches in Length, and an Inch and Half broad in the Middle, lessening gradually to both Ends. They are smooth, and of a glaucous or Sea-green Colour. From the Centre of the Root arises the Flower-stem, which grows about Two Feet high, and divides it into several Branches, having a few narrow Leaves, generally one being placed at every Division of the Branch. The Flowers are produced thinly on the Branches, forming a loose Spike, or Thyrsus. These are white, and consist of One Leaf, which is deeply cut into Six Parts. In the Centre is placed the Germen, supporting the Pointal, attended by Six Stamina, which are inserted in the Valves of the Nectarium, and are alternately short. The Germen becomes a roundish Seed-vessel, opening in Three Cells, which are filled with triangular Seeds.

I do not find this Plant mentioned in any Botanic Books, although it is very likely to have been formerly in the *Dutch* Gardens. There having been some Paintings of the Plant in several Flower-pieces, which are supposed to have been done upwards of Sixty Years. However, it has been lost for some Years in *Europe*, and has been lately recovered from Seeds, which were sent from the *Cape of Good Hope*, to *England* and *Holland*. The First Seeds which I received from thence, was the latter End of the Year 1750, which were sown in *October*, and, in *March* following, the Plants came up, and made considerable Progress that Summer; and, the following Spring, 1752, produced Flowers, and perfected their Seeds. Since which time, I have received many Seeds of this Plant from the *Cape of Good Hope* in several Parcels; so that we may suppose it to be pretty common there. There is no certain Season of this Plant flowering. For the First Year, it flowered in *May*; and since then it has flowered in *August* and *September*; and, when the Plants are kept in Warmth, they sometimes flower in Winter. When the Flowers are fully blown, they make a pretty Variety among other exotic Plants; but, unless the Season is dry and favourable, those Plants, which are exposed to the open Air, do not open their Flowers kindly.

This Plant is too tender to live through the Winter in the open Air in *England*; so must be kept in Pots, and housed, in Winter, or placed under a Hot-bed Frame, where the Frost is kept out by Covering: In which Management, the Plants will thrive better than in a common Green-house. In Winter, these Plants must have little Wet; for much Moisture, at that Season, is apt to rot their Roots. It is propagated by Seeds; for the Roots do not increase in *England*.

PLATE LVII.

ASTER, *Tourn. Inst. R. H.* 481. *Tab.* 274. *Raii Meth. Plant.* 53. *Lin. Gen. Plant.* 858. *Helenium*, *Vaill. N. Gen. Act. R. Sc.* 1723. Starwort. In *French*, *Astre*.

DOctor *Tournefort* ranges this Genus of Plants in his Fourteenth Class, intituled, *Herbs and Under-shrubs, with a radiated Flower, which is succeeded by Seeds having Down*. Mr. *Ray* places it in his Seventh Class of Plants, which he titles *Herbs with a discous radiated Flower, and pappose Seed*. Doctor *Linnæus* places it in his Nineteenth Class of Plants, which he titles *Syngenesia Polygamia*, from their being Male, Female, and Hermaphrodite Flowers included in the same Empalement.

The Species here represented is,

Fig. 1. ASTER *Caroliniānus pilosus conyzæ cæruleæ foliis, floribus luteis, quasi umbellatim dispositis*; i. e. Hairy *Carolina* Starwort, with Leaves like the blue Conyza, and yellow Flowers disposed in a Sort of Umbel. *a*, represents the Rays of the Flower, which are slightly cut into Three Parts at their Extremities; *b*, the Disk of the Flower, which is composed of several Florets; *c*, shews one of the Half Florets which compose the Ray taken out of the Empalement; *d*, represents a Floret taken out of the Disk, setting on the Embryo *e*; in the Center of which is placed the Pointal *f*.



Fig. 1 ASPARAGUS *ſativa* C. B. P. 489.

Fig. 2 ASPERULA *ſive Rubeola montana odora* C. B. P. 334



ASPHODELUS *foliis planis caule ramoso floribus sparsis*

Published according to [illegible] Miller [illegible]



ASTER Carolinianus pilosus Conyzæ coeruleæ foliis, floribus luteis quasi umbellatim dispositis.

J. Mynde sc.







BASTERIA, *foliis ovato-acuminatis caule fruticoso.*

The Seeds of this Plant were sent me from *South Carolina*, in the Year 1742, by my late Friend Dr. *Thomas Dale*, which succeeded in the *Chelsea* Garden, where the Plants flowered the following Year; but the Season proved too cold to ripen the Seeds, and the Plants being biennial, they perished in Winter.

This Plant produces many hairy oblong Leaves near the Root, which come out without any Order. They are from Four to near Six Inches long, and almost an Inch broad. From between these Leaves the Stalk arises immediately from the Root, which is Two Feet and an Half high, sending out several Side-branches. These are garnished with hairy Leaves of the same Shape with those at Bottom, but are smaller, and are placed alternately, on the Branches, which they closely embrace, having no Foot-stalk. At the Top of the Stalk, the Flowers are produced, which are large, and of a yellow Colour, composed of many Half Florets, which form the Border, or Ray; and the Disk in the Centre is composed of several Florets, each having a Pointal in the Middle, and attended by Five slender Stamina, which do not extend beyond the Corolla. At the Bottom of the Pointal is placed the Embryo, crowned with a pappose Down, which serves to waft the Seeds abroad when they are ripe. These are included in one common scaly Empalement.

This Plant approaches near to one which is figured by Dr. *Plukenet*, *Plate* 340, which he titles *Aster luteus Marianus, saligneis brevioribus foliis hirsutis pubescentibus, summo caule ramosius.* But the Leaves in his Figure are much less than those of our Plant, and the Flowers are smaller; and their Foot stalks are garnished with Leaves close to the Empalement; so that I doubt of its being the same Plant.

This must be ranked in the Genus of *Aster*, if we follow *Tournefort*'s Method; but, according to *Vaillant*'s, it should be under that of *Helenium*; and Dr. *Linnæus*'s System places it in his Genus of *Inula*, which he distinguishes from *Aster*, by its Empalement not being reflexed, and the Anthera being seated in the pappose Down.

Fig. 2. Aster *Americanus procumbens, Bellidis minoris facie, Houst. Mans.* i. e. Trailing *American* Starwort, having the Appearance of the lesser Daizy.

This Plant was discovered by the late Doctor *William Houstoun*, in the Year 1739, growing in Plenty in the sandy Ground about *Vera Cruz* in *America*; where he drew the Figure, and made a Description of the Plant upon the Spot; which he sent to *England* with the Seeds, some of which grew in the *Chelsea* Garden, and the Plants flowered the following Summer, but did not perfect their Seeds.

It hath slender fibrous Roots, which creep in the Ground, and send out many slender round Stalks, which bend and incline to the Ground. These are about Four or Five Inches long, destitute of Leaves, each sustaining One Flower, in Shape and Size of those of the common Field Daizy, of a whitish purple Colour; but the Rays are narrower. The Disk is composed of several Florets, which are succeeded by small Seeds crowned with a pappose Down. The Empalement, which includes the Flowers, is scaly, as represented at G.

As this Plant is a Native of a warm Climate, so it will not live in the open Air in *England*: therefore the Seeds must be sown in an Hot-bed, and the Plants will require a Stove to maintain them through the Winter.

PLATE LVIII.

Astragalus, *Tourn. Inst. R. H.* 415. *Tab.* 233. *Raii Meth. Plant.* 106. *Lin. Gen. Plant.* 799. Milk-Vetch. In *French*, *Astragale*.

THIS Genus of Plant is by Dr. *Tournefort* ranged in the Fifth Section of his Tenth Class, intituled, *Herbs with a papilionaceous Flower, whose Pointal changes into a bicapsular Pod.* Mr. *Ray* places it in his Twenty-first Class, and Third Division, which he titles *Leguminous Herbs, which are not three-leaved, whose Pods have a double Row of Seeds.* Dr. *Linnæus* places this Genus in his Seventeenth Class of Plants, intituled, *Diadelphia Decandria*, from the Flowers having Ten Stamina, which form Two Bodies, Nine of them joining together, and the Tenth standing separate.

The Species here represented is,

Astragalus *Alpinus procerior Alopecuroides, Inst. R. H.* 416. i. e. Taller Fox-tail Milk-Vetch of the *Alps*. This Plant is tituled by Dr. *Linnæus*, in the Catalogue of Mr. *Clifford*'s Garden, *Astralagus capitulis oblongis, sessilibus calycibus, & leguminibus lanatis*, p. 361; and, in his *Species Plantarum*, *Astralagus caulescens, spicis cylindricis, subsessilibus calycibus, leguminibusque lanatis*, p. 755.

This Plant was discovered by Dr. *Tournefort* growing on the *Alps*, who brought the Seeds to the Royal Garden at *Paris*, where it succeeded, and produced Seeds, which have been communicated to most of the Botanic Gardens in *Europe*. But, since his Time, this Plant has been found growing naturally in *Siberia*; from whence I have received the Seeds.

There are several Species of this Genus now known; but that which is here figured, is one of the most specious; and as there is not a good Figure of the Plant in any of the Botanic Books, so I have chosen this to represent the Genus. *a*, represents the Pod separated from the Spike; *b*, shews the Pod opened lengthways, with the double Row of Seeds, which is one of the Characters of this Genus; *c*, is a single Seed taken out of the Pod. The Spikes of Flowers are conspicuous in the Print.

This Plant seldom continues longer than Two or Three Years. The First Year, it rarely rises up to flower; but when the Plants come up in the Spring, they will get Strength before Winter; so will flower stronger the following Summer. The Flower-stems rise near Two Foot high, and produce One or Two close obtuse Spikes of Flowers, which closely surround the Stem, having very short Foot-stalks. The Empalement of the Flower, as also the Pods, are almost covered with a soft Lanugo, or Down. The Flowers are yellow, and of the Pea-blossom Kind, consisting of a Standard, a Keel, and Two Wings. In the Keel is closely wrapped the Ten Stamina and Pointal. After the Flower is past, the Pointal becomes a short Pod, having Four or Six Kidney-shaped Seeds. It flowers in *July*, and the Seeds ripen in *September*.

PLATE LIX.

Balsamina, *Tourn. Inst. R. H.* 481. *Balsamina fœmina, Raii Meth.* 113. *Impatiens, Riv.* IV. 146. *Lin. Gen. Plant.* 895.

DOctor *Tournefort* ranges this Genus of Plants in his Eleventh Class, intituled, *Herbs with a polypetalous anomalous Flower, whose Pointal turns to an unicapsular Fruit.* Mr. *Ray* places it in his Twenty-second Class of Plants, titled, *Herbs with an irregular biform Flower.* *Rivinus* puts it among his *Flore Tretrapetalo.* Dr. *Linnæus* places it in his Nineteenth Class of Plants, intituled, *Monogamia*, and keeps the Title of *Impatiens* to the Genus, which was applied to it by *Dodonæus*, *Rivinus*, and some other Authors, from the Seed-vessel being impatient to the Touch when ripe; for, upon its being handled at that time, the Pod bursts open, and twists up in Form of a Screw, throwing out the Seeds to some Distance.

The Species here represented is,

Balsamina *fœmina, flore majore pleno elegantissime variegato*; i. e. Female Balsamine, with a large double Flower, elegantly striped. *a*, represents the Tail of the Flower, which is bent at the Foot-stalk, where there is a Spur or Heel produced, somewhat like the Larkspur; *b*, shews the Forepart of the Flower; *c*, the Pod when fully grown; *d*, the Seeds.

The Seeds of this Plant were brought from *China*, by the Title of *Immortal Eagle Flower*. It has been preserved several Years in the Gardens of curious Persons; and if Care is taken to pull off all those Flowers from the Plants, which are not double or well-coloured, not permitting them to have Seeds, the Kind may be preserved without degenerating in *England*. There is one Sort of this Plant common in the Islands of *America*, where it is called *Cockspur*. But this grows very large in our Gardens, and very rarely comes to flower till late in the Season; nor are the Flowers so double as in the *China* Sort, so it is scarce worth propagating here. I do imagine, that this was introduced from *India* to these Islands, and is not a Plant natural to that Country, where, by its bearing Plenty of Seeds, it is now become so common there, as to be thought a Plant of that Country; but as the Inhabitants have not been careful in saving of the Seeds, so it hath degenerated there so much, as to have few Plants with double Flowers. The common Sort with single Flowers has been long cultivated in the *English* Gardens; but was first brought from *India*, where there are several other Species of this Genus; but none of them approaches to the Sort here figured in Beauty. Dr. *Linnæus* supposes the common Balsamine and this to be the same Species; in which I think he mistakes; for the Flowers of this are near double the Size of those of the common Sort; so that altho' the Colours of the Flowers may vary, and the double degenerate to single Flowers, yet they will never alter in the Size of the Flower, nor will the Plants have the same Appearance; so that they may be put down as different Species.

The Title of *Fœmina* was applied to this Genus by some of the old Botanic Authors, who joined this with the *Momordica*, to which they gave the Title of *Balsamina Mas*, for no other Reason than that of the Fruit bursting open on the Touch, when ripe, as the Pods of the other do; but there is no Affinity either in the Flowers or Fruit of the Two Plants; the *Momordica* approaching near to the *Cucumber* in Flower and Fruit.

PLATE LX.

Basteria.

The Characters of this Genus are,

The Empalement of the Flower is of One Leaf, cut into Five narrow Segments to the Bottom: The Flower is composed of many oblong pointed Leaves, or Petals, which are inserted in the Empalement, each turning inward toward their upper Part, so as at first to wrap over the Stamina, somewhat like the Flowers of the starry Anemone. In the Centre of the Flower is placed the roundish Ovarium, which is composed of Five Germina, and is attended by many short Stamina, crowned with blunt Summits.

THIS Plant must be ranged, according to Dr. *Linnæus*'s System, in his Class of *Polyandria Pentagynia*. Mr. *Catesby* has figured this Plant, in his *History of Carolina*, under the following Title: *Frutex corni foliis conjugatis, floribus instar Anemones stellatæ, petalis crassis rigidis, colore sordide rubente, corticea romatico*, Vol. I. p. 46. It is commonly known in the Gardens by the Name of *Allspice*; but as that Title has been long applied to the *Jamaica Pepper*, so the fixing of it to this Plant may occasion Confusion in their Names.

In *England* this is but a low Shrub, rarely rising above Three or Four Feet high, and, in its natural Country, seldom more than Eight or Ten Feet. It divides into many irregular Branches, which are covered with a bright brown Bark, which is very aromatic. These Branches are garnished with Leaves placed by Pairs opposite, which are oval, being near Two Inches long, and about One and an Half in the Middle, generally ending with a Point, having One longitudinal Vein, with Three going horizontally to the Sides. At the Extremity of the Branches the Flowers are produced singly, supported by short Foot-stalks. These are composed of many narrow crooked Petals or Leaves, of a very dark Copper worn-out Purple Colour, having in their Centre a roundish Ovarium, composed of Five Germina, surrounded by a great Number of short Stamina, which are crowned with blunt Summits of a yellow Colour. The Ovarium always falls away with the Petals of the Flower in *England*, and never grows larger; so that it is uncertain what Seed-vessel it produces.

As this Plant has not had any proper Title given it in any of the Botanic Books, so I have applied the following Name to it, in Honour of my worthy Friend Doctor *Job Baster*, F. R. S. of *Zirkzee*.

Basteria *foliis ovato-acuminatis, caule fruticoso*; i. e. Basteria with oval-pointed Leaves and woody Stalks. *a*, represents the hinder Part of the Flower, with its Empalement; *b*, shews the Forepart of it; and *c*, the many Stamina which surround the Ovary.

Dr. *Kæmpfer*, in his *Amœnitates Exoticarum*, has figured and described a Plant, in *Page* 880, by the *Indian* Title *Somo*, vulgo *Skimmi*, which seems to approach near this in the Flower, and also in the Scent of its Bark; but he says it rises to the Height of a Cherry-tree; and the Leaves of his are much longer than those of this Plant; so that I doubt of its being the same.

It was procured from *Carolina* by Mr. *Catesby*, who says it grows at a great Distance from the Settlements already made in that Country; but I have been informed, that the Inhabitants of *Charles-Town* have propagated it in their Gardens of late Years, so have great Plenty of it there.

This Shrub will live in the open Air in *England*, if it is planted in a warm Situation; but in severe Winters it is frequently killed, when the Plants have not Strength, or are too much exposed to the Winds.

PLATE LXI.

BAUHINIA, *Plum. N. Gen. Plant.* 23. *Tab.* 13. *Lin. Gen.* 459. Mountain Ebony.

THIS Genus of Plants is by Doctor *Linnæus* ranged in his Sixth Class, intituled, *Decandria Monogynia*, the Flowers having each Ten Stamina and One Style.

The Species here represented is,

BAUHINIA *foliis ovato-cordatis lobis longissimis parallelis*; i. e. Mountain Ebony, with oval Heart-shaped Leaves, with very long Lobes standing parallel. *a*, represents the Flower, with its Ten incurved Stamina; *b*, the Style of the Flower; *c*, the Pod; and *d*, the Seed taken out of the Pod.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The Plant, here represented, approaches near to the *Bauhinia non aculeata, folio ampliori bicorni*, of Father *Plumier*; but the Lobes of the Leaves are much longer; nor are the Flowers so large as those of his Plant, which is figured in the *Hortus Malabaricus*, by the Title of *Velutta-Mandaru*; and is, by Dr. *Linnæus*, titled *Bauhinia foliis ovatis lobis acuminatis semiovatis Spec. Plant.* 375.

There are many Species of this Genus, which are Natives of the *West* and *East Indies*, in both of which they are equally common. The Seeds of this, as also of Two other Species, I have received from *Jamaica*, by the Title of *Mountain Ebony*, the Wood of the Trees being very hard and black, somewhat resembling the true Ebony, occasioned their so calling it, and having no better Epithet for it in *English*, I have continued that Name to it. I have received Seeds of another Sort from *Jamaica*, by the Title of *Upright Honey-suckle*, the Plants of which are now growing in the *Chelsea* Garden, but have not yet flowered. This Sort seldom grows taller than Five or Six Feet, in its native Soil, but the Extremities of every Branch are garnished with large Clusters of Flowers, somewhat resembling those of the *Honey-suckle*, from whence it had this Name. The common Title of this Genus of Plants in the *East Indies* is MANDARU, to which they add some other Epithet to distinguish the Species. One of the Species, which is that of Father *Plumier* before-mentioned, has been titled by some ancient Botanists *Arbor S. Thomæ*, and the Flower *Flos Divi Thomæ*; the Flowers of that Species being striped with purple, the ignorant People had a Superstition that they were striped with *St. Thomas*'s Blood.

There are a much greater Variety of these Plants than are mentioned in any of the Books of Botany; for I have Specimens of at least Twelve Sorts, which are very distinct; some of which have twining Stalks, others have their Stems and Branches full of Thorns; many of these came from *Jamaica*, and others were sent me from the *Leeward Islands*.

As these Plants are Natives of hot Countries, so they will not live in *England*, unless they are placed in a Hot-house in Winter; but a moderate Warmth will preserve them, provided they have not much Wet in Winter. Several of the Sorts flower very well in *England*, and make a very good Appearance in the Hot-house, when they are in Flower; so are as well worth preserving, as most other exotic Plants; and the Seeds of them may be easily obtained from the *West Indies*. The Culture of them is fully inserted in the *Gardener's Dictionary*.

PLATE LXII.

BELLADONA, *Tourn. Inst. R. H.* 77. *Tab.* 13. *Solanum lethale, seu Belladona, Raii Meth. Plant.* 74. *Atropa Lin. Gen. Plant.* 222. The Deadly Night-shade.

THIS Genus of Plants is by *Tournefort* ranged in the First Section of his First Class of Plants, intituled, *Herbs with a Bell-shaped Flower, of One Leaf, whose Pointal changes to a soft pulpy Fruit.* Mr. *Ray* places it in his Seventeenth Class of Plants, *bearing Berries which grow separate.* Dr. *Linnæus* ranges it in his Fifth Class of Plants, intituled, *Pentandria Monogynia*; the Flowers having Five Stamina and One Germen.

The Species here represented is,

BELLADONA, *majoribus foliis et floribus, Inst. R. H.* 77. Deadly Night-shade, with larger Leaves and Flowers. *a*, represents the Bell-shaped Flower, which generally turns downward; *b*, one of the Berries intire, when ripe; *c*, shews the Fruit cut open; and *d*, the Seeds.

This is by *Clusius* called *Solanum lethale Belladona*; and by *Tragus*, *Solanum hortense nigrum*; by *Caspar Bauhin*, *Solanum Melanocerasus, Pin.* 166; by *Parkinson* and *Gerard*, *Solanum lethale*; and in *English*, *Dwale*, or *Deadly Night shade*. Doctor *Linnæus* has changed the Title of this Genus to *Atropa*; and this Species he calls *Atropa caule herbaceo, foliis ovatis integris. Sp. Plant.* 181. There is another Species of this Genus, mentioned by *Clusius* and *Tournefort*, having smaller Leaves and Flowers, but if there is a real Distinction between these Plants, I have not seen the latter in any of the *English* or *Dutch* Gardens.

The Sort here figured grows wild in several Parts of *England*, but particularly about *Rochester* and *Chatham*, in *Kent*, where I have observed it growing from between the Joints of old Walls, and in most of their unfrequented Lanes; and in *Woodstock Park*, in *Oxfordshire*, and *Up-Park*, in *Hampshire*, in great Plenty. This Plant hath a perennial Root, and an annual Stalk, which decays to the Ground in Autumn, and fresh Shoots are put out from the Roots early in the Spring; which, in a rich moist Ground, will grow to the Height of Five Feet, but

but on poor Land, or when the Plants grow out of the Joints of Walls, their usual Height is from Two to Three Feet. The Flowers are produced singly from the Joints, between the Leaves, on pretty long Footstalks: These are large and Bell-shaped, divided at their Rim or Edge into Five Parts, and are of a dusky brown greenish Colour on their Outside, and purplish within. In the Centre of the Flower is placed the oval Germen, supporting a slender Stile, attended by Five Stamina, which extend the Length of the tubulous Flower, and are crowned with thick Summits, which incline on one Side. When the Flower falls off, the Germen turns to a globular soft Fruit, resting in the permanent Empalement; this is flatted at Top, and when ripe is of a shining black Colour, filled with a purple Juice, in which are many Kidney-shaped Seeds. It flowers in *June*, *July*, and *August*, and the Fruit is ripe in *August*, *September*, and *October*; for there is a Succession of Flowers and Fruit on the same Plant upwards of Three Months.

The Berries of this Plant are of a malignant poisonous Nature; and being of a sweet Taste, many Children have been poisoned by eating them; therefore the Plants should be destroyed before they produce Fruit, in all Places where Children are permitted to walk, to prevent the ill Effect which may otherwise happen. The only safe Remedy against the Poison of these Berries is to drink a large Glass of warm Vinegar, as soon as possible after eating of the Berries, which will prevent their having a bad Effect. The Leaves of this Plant are sometimes used in outward Applications, for Inflammations, or to abate hard Swellings or Tumours; and some Persons have used them for the Cure of Cancers and scrophulous Diseases.

If the Berries of this Plant are permitted to fall on the Ground, the Seeds will produce Plenty of the Plants the following Spring; so that a single Plant, being left to perfect its Seeds, will soon fill the Ground with Plants.

PLATE LXIII.

Berberis, *Tourn. Inst. R. H.* 614. *Tab.* 385. *Raii Meth. Plant.* 154. *Lin. Gen. Plant.* 399. The Barberry Bush. In *French*, *Epine-vinete*.

THIS Genus is by *Tournefort* ranged in his Second Section of the Twenty-first Class of Plants, intituled, *Trees and Shrubs with a Rose-shaped Flower, whose Pointal becomes a Berry.* Mr. *Ray* places it among his Trees and Shrubs which have Berries with many Seeds, which are not umbilicated; and Dr. *Linnæus* ranges it in his Sixth Class of Plants, intituled, *Hexandria Monogynia*; i. e. Plants whose Flowers have Six Stamina and One Style.

The Species here represented is,

Berberis *Dumetorum*, *C. B. P.* 454. The common Barberry or Pipperidge Bush.

This is the *Berberis vulgo quæ & Oxyacantha putata*, *J. B.* 1. 52.; and, by *Dodonæus*, is titled, *Spina acida sive Oxyacantho pempt.* 750. Dr. *Linnæus* titles it, *Berberis pedunculis racemosis*, *Mat. Med.* 290. *Sp. Plant.* 330.

This Bush is frequently found growing in the Hedges in several Parts of *England*; though I believe it is not a Native of this Country; but the Seeds have either been scattered in the Places where they are found growing wild, or the Plants have been removed out of Gardens; for I have never seen it growing wild in any of the Woods: But where-ever any of these Plants happen to grow, they soon propagate very fast, both by Suckers, which are abundantly sent forth from their Roots, as also from Seeds falling, or being scattered by Birds.

It grows to the Height of Six or Eight Feet, with many Stems arising from the Root, and these do branch out on every Side, so as to form a large Shrub or Bush. The Branches are long and brittle, armed with sharp Thorns at the setting on of the Leaves, which are, for the most part, triple, like the three-thorned *Acacia*. The Bark is white on the Outside, but the inner Bark is of a deep yellow. The Leaves are placed alternately on the Branches, which are oval, their upper Part being blunt and rounded, and neatly indented on their Edges, having a sharp acid Juice. The Flowers are produced in Bunches, like those of Currants; these are Bottle-shaped, spread open at their Brims, and are of a yellow Colour, having Six compressed Stamina, each of them crowned with a double Summit: In the Bottom of the Flower is situated a roundish Nectarium, divided into Two Parts. After the Flower is fallen, the Germen becomes a Fruit of an oblong Form, having One Cell, in which are lodged Two hard oblong Seeds. The Flowers are produced in *May*; these have a strong faint Smell; so that where there are many of the Bushes growing, it is very disagreeable for any Person to approach them at that Season. The Fruit is ripe in *September*, when they are brought in Plenty to the *London* Markets, and sold for Pickling.

The inner Bark, and the Berries of this Shrub, are used in Medicine. The inner Bark is accounted opening and attenuating, and is esteemed good against the Jaundice, taken either in Infusion or Decoction. The Fruit is very cooling and restringent, and good to moisten the Mouth, and quench Thirst in burning Fevers. A Conserve made of the Fruit is serviceable against all Kinds of Fluxes, and is frequently ordered in the Jaundice. The Seeds are also reckoned to have the same Quality, but are seldom used.

The Propagation and Culture of this and the other Species of this Genus, are fully inserted in the *Gardener's Dictionary*; so I need not repeat them here.

Pl. LXI.



BAUHINIA *foliis ovato-cordatis, lobis longissimis parallelis*

R. Lancake delin. — Published according to the Act by P. Miller Jan.y 27th 1756. — T. Jefferys sculp.

Stony Mountain



BELLADONA *majoribus foliis & floribus Inst. R. H. 77.*

R. Lancake del. — *J. S. Miller sculp.*

Publish'd according to Act of Parliament by P. Miller Jan. 27 1756

Pl LXIII



BERBERIS *dumetorum* C.B.P. 454

R. Lancake delin — Published according to Act of Parl. by Ph. Miller Jan. 27 1760 — J. Jeffreys sculp.

Barberry bush



BIDENS, *calyce oblongo squamoso, feminibus radii corolla non deciduâ coronatis. Jussieu*

R. Lancake del. J. S. Miller sculp.

Publish'd according to Act of Parliament by P. Miller Jan.y 27. 1756.

Water-hemp agrimony



BISTORTA MAJOR, *radice minus intorta* C.B.P. 192.

R. Lancake del. *J. S. Miller Sculp.*

Publish'd according to Act of Parliament by P. Miller Jan.y 27. 1756.

Snake-weed

PLATE LXIV.

BIDENS, *Cæsalp.* 488. *Tourn. Inst. R. H.* 462. *Tab.* 262. *Lin. Gen. Plant.* 840. *Cannabina aquatica Raii Meth. Plant.* 27. *Verbesina Rivin. Ceratocephalus Vaill. Mem. Acad. R. S.* 1720. Water Hemp Agrimony.

TOurnefort ranges this Genus in his Twelfth Class of Plants, with flosculous Flowers, and Seeds without Down; Mr. *Ray* places it in his Eighth Class of Plants, which he titles *Corymbiferæ flore radiato*; and Dr. *Linnæus* puts it under his Nineteenth Class of Plants, intituled *Syngenesia Polygamia æqualis*; which includes those Plants, whose Female and Hermaphrodite Flowers, included in the same *Involucrum*, are equal.

The Species here represented is,

BIDENS *calyce oblongo squamoso seminibus radii corolla non deciduo coronatis* Jussieu; Water Hemp-Agrimonia, with an oblong scaly Empalement, whose Flowers and Empalement are permanent, and never fall away from the Bud. *a*, shews the scaly Empalement, closely embracing the Flower-bud; *b*, the Rays of the Flower, which are indented at their Extremity; *c*, the Hermaphrodite Flowers, which compose the Disk; *d*, One of the Female Flowers, taken out of the Empalement, to which adheres a single Seed; *e*, One of the Seeds taken out of an Hermaphrodite Flower; *f*, represents the small Stamina, with their globular Summits.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The Seeds of this Plant were sent from *Peru* to the Royal Garden at *Paris*, where it has flourished a few Years past, and the Plants have produced Seeds there, which have been communicated to several curious Gardens in *Europe*. The Seeds were sent me in the Year 1753; and the following Summer the Plants flowered, and produced good Seeds in the *Chelsea* Garden. It rises to the Height of Four Feet: The Stalks do become hard and ligneous, and divide into many Branches, which are garnished with oblong smooth Leaves, which are intire; these are placed opposite by Pairs: At the Extremity of the Branches the Flowers are produced, each standing single upon a Foot-stalk, which is garnished with smaller Leaves, close to the Empalement of the Flower. This Empalement is composed of many Scales, placed *imbricatim*, like the Tiles on an House, and closely embrace the Flower, which is composed of a Border of Female Flowers, having each One Leaf, stretched out like a Tongue, forming the Ray of the Flower; and in the Centre are many Hermaphrodite Flowers, which are tubulous; and these do compose the Disk of the Flower: Each of these have Five slender Stamina, supporting a globular Summit: In the Centre is placed the Germen, which afterward becomes a single oblong Seed. The whole of the Flower continues, and never falls off; so that when the Seeds are ripe, the Rays of the Flower are remaining firm, and only change their Colour; and adhere so closely to the Seeds, as to render it difficult to part them. The Flowers when blown are as large as those of the common Marygold, and are of a yellow Colour.

The Seeds of this Plant must be sown upon an Hot-bed in the Spring; and, when the Plants come up, they must be transplanted to another Hot-bed, to bring the Plants forward; but they must not be drawn too much, which will render them very weak: therefore when the Weather is favourable, they should have a large Share of Air admitted to them. By the Beginning of *June* they should be inured to bear the open Air by Degrees, and, about the Middle of that Month, they should be transplanted, with Balls of Earth to their Roots, some of them into Pots, and others into warm Borders, shading them until they have taken Root; after which Time they will require no farther Care, but to water them in dry Weather. In *July* the Plants will flower, and the Seeds are ripe in *October*: But in wet cold Seasons the Seeds will not ripen in *England*, unless the Plants are sheltered under Glasses.

PLATE LXV.

BIGNONIA, *Tourn. Inst. R. H.* 164. *Tab.* 72. *Lin. Gen. Plant.* 677. *Raii Meth. Plant.* 90. *Gelseminum Cornut.* The Trumpet-Tree, *vulgo*.

THIS Genus of Plants was established by Dr. *Tournefort*, who gave it this Title in Honour to the late learned Abbé *Bignon*, who was principal Librarian to the King of *France*; and he ranged it in the Third Section of the First Class of Plants, intitled, *Herbs with an anomalous Flower of One Leaf, spreading open at their Brim*: Mr. *Ray* places it in his Nineteenth Class of Plants, *with a labiated Flower of One Leaf, which is succeeded by Pods*; and Dr. *Linnæus* puts it in his Fourteenth Class of Plants, intituled *Didynamia Angiospermia*, the Flowers of this Class having Two long and Two short Stamina.

The Species here exhibited is,

BIGNONIA *foliis pinnatis minoribus, foliolis mucronatis marginibus incisis geniculis radicatis*; i. e. Trumpet-flower (or *Bignonia*), with smaller pointed winged Leaves, being cut on their Edges, and Roots coming out from the Joints of their Stalks. *a*, represents the Flower intire, growing in a Cluster, at the Extremity of the Branch; *b*, shews a Flower opened lengthways, with the Two longer and Two short Stamina, and the Pointal situated between the Two long Stamina; *c*, represents the Pod, when full grown, and the Seeds ranged *imbricatim*, like Tiles on an House; *d*, a single Seed taken out of the Pod, with its Wing adhering to it.

This Species is, by Mr. *Catesby*, titled *Bignonia fraxini foliis, coccineo flore minore*; i. e. Bignonia with Ash-Leaves, and a smaller scarlet Flower. He has given a Figure of it, but it wants the Seed-vessel; and the Colour of his Flowers is much more like the larger Sort, which Dr. *Tournefort* titles *Bignonia Americana fraxini folio, flore amplo Phœnicio, Inst. R. H.* 164. This last has been many Years an Inhabitant in most of the curious Gardens in *Europe*; but was brought from *North America*, where it grows naturally in the Woods, fastening its Branches to the tall Trees, by the Roots which are sent forth at the Joints, whereby they are supported, and mount up to the Top of the highest Trees. And when they are planted near Walls, the Roots will fasten themselves into the Joints of the Wall, and, where they have room, will rise to the Height of Fifty or Sixty Feet. This larger Sort is figured by *Cornutus*, *Ferarius*, and several other Botanists, by the Title of *Gelseminum Hederaceum Indicum*, from the Resemblance of its Flowers to those of the *Jasmine*; and the *French* do now call it *Jasmin de Virginie*; but in *England* it is generally known by the Title of *Trumpet-flower*, or *Mexiocitle*.

The Plant here figured is, by many Botanists, supposed to be only a Variety of the larger Sort; but all the Plants of this Sort which have been raised from Seeds in the *English* Gardens, for several Years past, do retain their Difference; so they may be allowed to be distinct Species. There are Two old Plants in the *Chelsea* Garden, One of each Sort, which have grown near each other above Fifty Years, and do constantly produce Flowers every Year, which are remarkably different in their Size and Colour, as also in the Size and Shape of their Leaves; but it is of late Years that this Sort has been much propagated in the *English* Gardens. The Seeds of it were sent from *Carolina* in 1724 by Mr. *Catesby*, from which many Plants were raised; and since that Time the Seeds have been frequently sent to *England* from that Country, and great Numbers of Plants have been raised in the Gardens; but the Plants which have been raised from Seeds are several Years before they flower, and are not near so productive of them as those Plants which are propagated by Suckers, or Cuttings from old Trees.

PLATE LXVI.

Bistorta, *Tourn. Inst. R. H.* 511. *Tab.* 291. *Raii Meth. Plant.* 22. *Polygonum, Lin. Gen. Plant.* 445. Bistort, or Snake-weed.

THIS Genus of Plants is by *Tournefort* ranged in his Fifteenth Class, intituled, *Herbs with stamineous Flowers, whose Pointal becomes the Seed, wrapped in the Empalement*: Mr. *Ray* places it in his Fifth Class of Plants, *with stamineous Flowers, which are succeeded by Seeds*; Dr. *Linnæus* places it in the Third Division of his Eighth Class of Plants, intituled *Octandria Trigynia*, the the Flowers having Eight Stamina and Three Styles; and he joins this, the *Persicaria*, *Fagopyrum*, and *Helxine*, of his former Edition, to the Genus of *Polygonum*, making these only Species of that Genus.

The Species here represented is,

Bistorta *major radice minus intorta, C. B. P.* 192. The greater Bistort, or Snake-weed. *a*, represents the Flowers as they grow in a close Spike; *b*, is a single Flower taken from the Spike, which shews they have no Empalement, so the Corol of the Flower afterward closely surrounds the Seed.

This is the *Bistorta major vulgaris* of *Parkinson* and *Gerard*; by *John Bauhin* it is titled *Bistorta major rugosioribus foliis, hist.* 3. 538.; and Dr. *Linnæus* titles it, *Polygonum caule simplicissimo monostachyo, foliis ovatis in petiolum decurrentibus, Mat. Med.* 188. *Spe. Plant.* 360.

This Plant grows naturally in moist Meadows, in several Parts of *England*, particularly in *Yorkshire*, and some of the Northern Counties. It is found in pretty great Plenty in *Battersea* Meadows, near the River-side, which is the only Place so near *London* where I have observed it growing naturally. The usual Time of its flowering is in *May* and *June*; though, when the Autumn proves moist and favourable, it frequently flowers again in *September* and *October*; but especially if the Meadows are mowed for Hay, and the Stalks and Leaves of the Plants are cut pretty near the Ground, then they put out new Leaves and Stalks from the Roots, and these produce a fresh Succession of Flowers in the Autumn: And where any of these Plants are preserved in Gardens, if the Stems are cut down as soon as the Flowers are past in Summer, they will push out fresh Stalks soon after, if they grow in moist Ground, or are duly watered, and these will have Plenty of Flowers in the Autumn; when these Plants will make as good an Appearance in a Garden, as many other Plants which are allowed to have a Place there.

It propagates greatly by its running Roots; so that when it is once allowed a Place in the Garden, it will soon multiply fast enough. The Leaves and Stalks decay in Winter, and the Roots put out new early in the Spring.

The Roots of Bistort are used in Medicine, which are drying and binding, so are esteemed to be of Service in all Kinds of Fluxes and Hæmorrhages, either from the Bowels, or in any other Part. They are also alexipharmic, and good in pestilential Fevers. They resist Poison, and the Bite or Sting of venomous Creatures.

These Roots have also been used for tanning of Leather, for which Purpose Rewards have been given, to Persons by way of Encouragement; but the great Quantity of Roots which would be required for this Purpose, in order to supply the Want of Oak-Bark, is more than can be procured growing wild; and I fear it will never answer the Expence of cultivating it, as the Oak-Bark can be had in Plenty in most Parts of *England*.

PLATE LXVII.

BLATTARIA, *Tourn. Inst. R. H.* 147. *Tab.* 61. *Raii Meth. Plant.* 85: *Verbascum, Lin. Gen. Plant.* 217. Moth Mullein; in French, *Herbe aux mites.*

TOURNEFORT ranges this Genus in his Second Class of Plants, intituled, *Herbs with a Wheel-shaped Flower of One Leaf, whose Pointal turns to a dry Fruit.* Mr. *Ray* places it in his Nineteenth Class of Plants, *whose Flowers are uniform, monopetalous, and are succeeded by dry Capsules.* Dr. *Linnaeus* puts it in his Fifth Class of Plants, intituled, *Pentandria Monogynia*, the Flower having Five Stamina, and One Germen. Doctor *Tournefort*, Mr. *Ray*, and some other Botanists, have separated the Plants of this Genus from the *Verbascum*, or Common Mullein, on account of their Seed-vessels being round, whereas those of *Verbascum* are oblong, ending in a Point.

The Species here represented is,

BLATTARIA *alba, C. B. P.* 241. White Moth Mullein. *a*, represents the Plant before it shoots out the Flower-stem; *b*, the long Spike of Flowers; *c*, the single Flower, taken from the Spike, shewing the Five Stamina, and the single Stylus, as also how the Flower is joined at the Base, so as to fall off intire, though it is cut into Five Parts almost to the Bottom. *d*, represents an intire Seed-vessel; *e*, the same cut through horizontally, shewing the intermediate Partition which divides it into Two Cells; *f*, the Seeds taken out of the Capsule.

This Plant is, by *Lobel*, titled, *Blattaria flore albo, perperam verbascum faemina vulgò. Icon.* 563. and by *John Baubin, Parkinson*, and others, *Blattaria flore albo*, i. e. Moth Mullein, with a white Flower. There are Two other Varieties of this Plant, one with a Rose-coloured Flower, and the other with a worn-out purple Flower; but these are accidental Varieties which do vary, and are not constant. This with white Flowers often produces Rose-coloured Flowers; and the Seeds of the Rose-colour sometimes produce Plants with the purple Flowers. These are biennial Plants, which perish soon after they have perfected their Seeds. The Plants very rarely shoot up their Flower-stems the First Year, but spread their Leaves close upon the Surface of the Ground, in the manner represented in the Figure; and the Spring following the Flower-stem is put forth from the Center of the Plant, which rises to the Height of Three or Four Feet, according to the Goodness of the Soil wherein they grow. The Flowers are produced almost the whole Length of the Stem, at every Joint; One or Two coming out from the Wings of the Leaves, and these succeed each other, so that the same Stem will be garnished with Flowers upwards of Two Months. The usual Time of their Flowering is in *June, July*, and *August*, and their Seeds ripen in *October*; which, if permitted to fall on the Ground, will grow much better than if sown, especially if they are not sown in Autumn, soon after are ripe; for the Seeds sown in the Spring do often fail, or frequently remain till the following Autumn before they grow.

Doctor *Tournefort* enumerates Fifteen Varieties of this Genus, Eleven of which are undoubtedly distinct Species, several of them having perennial Roots, and some have perennial Stalks; but they are also as different in the Form of their Leaves as most other Species of Plants of the same Genus; so should not be confounded as they are by Doctor *Linnaeus*, in his Species of Plants, where he enumerates only the common yellow Moth Mullein, and supposes all the others to be but seminal Varieties; whereas many of them, which I have cultivated above Thirty Years, have always retained their Difference when raised from Seeds. All the Species of this Genus are hardy; and if they are sown upon poor Land, and in Rubbish, or happen to grow upon old Walls, they will resist the greatest Cold of this Country; but in a rich moist Soil they often rot in Winter.

PLATE LXVIII.

BORRAGO, *Tourn. Inst. R. H.* 133. *Tab.* 53. *Borago Raii Meth. Plant.* 56. *Lin. Gen. Plant.* 172. Borage; in French, *Bourrache.*

THIS Genus of Plant is, by Doctor *Tournefort*, ranged in the Fourth Section of his Second Class, intituled, *Herbs with a Funnel or Wheel-shaped Flower of One Leaf, whose Pointal is attended by Four Embryos, which afterward become so many Seeds inclosed in the Flower-cup.* Mr. *Ray* places this Genus in his Thirteenth Class of Plants, intituled, *Herbs with rough or prickly Leaves, whose Flowers are succeeded by Four naked Seeds:* And Doctor *Linnaeus* ranges it in his Fifth Class of Plants, intituled, *Pentandria Monogynia*, from the Flower having Five Stamina, and One Stylus.

The Species here represented is,

BORRAGO *Constantinopolitana, flore reflexo caeruleo, calyce vesicaria, Tourn. Cor.* 6. i. e. Borage of *Constantinople*, with a blue Flower, whose Petals are reflexed, and a swelling Empalement. This Plant is, by Doctor *Linnaeus*, titled, *Borago calycibus tubo corollae brevioribus, foliis cordatis, Hort. Cliff.* 45. *i. e.* Borage with an Empalement shorter than the Tube of the Flower, and Heart-shaped Leaves. *a*, represents a single Flower, drawn out of the Empalement, and reversed, to shew the Tube; *b*, represents the Empalement, with the Pointal arising from the Base, between the Four Embryo's, and stretched out beyond the Empalement; *c*, shews the Five Stamina, connected at their Summits with the Pointal.

This Plant hath a perennial Root, which spreads and increases very much when it is planted in a light dry Soil; and if it has a warm Situation, it will live in the open Air without any Cover: But as it is a very early Shooter in the Spring, generally flowering in *February*, in mild Seasons, so when it happens to prove Frost in *March*, the Flower-stems are frequently killed, where they

they grow in an open Exposure; but near the Shelter of Walls, or other Fences, they are seldom injured; for I have had them growing some Years in a North Border, where the Sun never appears in Winter; and even there the Plants have thriven well: But these rarely flowered with me so well as those which were in a warmer Situation.

The Flower-stems rise near Two Feet high, but many of the Flowers begin to open before it is Six Inches from the Ground; for the Flowers, at their first Appearance, are collected into a close Spike; but as the Stem advances in Height, the smaller Flower-stalks branch out into a diffused Spike. These come out alternately from the main Stem, and have each a single Leaf growing at their Base. The Flowers all hang downward, and the Corol is reflexed black, somewhat like those of the *Cyclamen*, or Sow-bread. These are of a pale blue Colour, having their Stamina and Pointal connected together at their [illegible] which is One of the Characters of this Genus. [illegible] Four Embryo's, situated at the Bottom of [illegible], which become so many naked [illegible] but these seldom ripen in *England*; but the [illegible] increases abundantly by its creeping [illegible] Root.

As [illegible] is a Plant well known to most Persons, [illegible] omitted giving the Figure of that Pl[illegible] made Choice of this, to explain the Ch[illegible] Genus.

[illegible] *Tournefort* found this Plant growing naturally near *Constantinople*, from whence he sent the Seeds to the Royal Garden at *Paris*; where they succeeded, and from thence many curious Gardens have been furnished with the Plant.

PLATE LXIX.

BROWALLIA, *Lin. Gen. Plant.* 691. *Dalea Dict. Hort. Hort. Chel. Ind.* 6[illegible]. *Act. Phil. n.* 452. *p.* 2. We have no *English* Title for this Plant.

Doctor *Linnæus* ranges this Genus in his Fourteenth Class of Plants, intituled, *Didynamia Angiospermia*, from the Flower having Two long and Two short Stamina, and many Seeds inclosed in One Capsule. According to *Tournefort*'s Method, it should be placed in the Fourth Section of his Third Class of Plants, intituled, *Herbs with an anomalous and personated Flower of One Leaf*. And it will come into Mr. *Ray*'s Nineteenth Class of [illegible], with an irregular difform Flower of One Leaf.

The Characters are;

It hath an irregular Funnel-shaped Flower of One Leaf, with a [illegible] *Tube, stretched out a good Length beyond the Empalement,* as at a; *the upper Part (or Limb) of the Flower* b, *is spread open, and deeply divided into Five Parts; each of which is again cut into Two shorter Segments,* [illegible] *are round, the Two upper Segments being a little* [illegible] *the lower. From the Bottom of the Tube arise* [illegible] *Stamina, which are broad and reflexed,* as at c; *and the Two shorter* d; *which do not extend beyond the Tube of the Flower. In the Center is situated an oval Germen, supporting a slender Stylus. The Germen afterward* [illegible] *Capsule, filled with small naked Seeds.*

The Species here represented is,

BROWALLIA [illegible] *lanceolatis petiolis longis, caule ramoso,* [illegible] i. e. Browallia with Spear-shaped [illegible] long Footstalks, a branching Stalk, and [illegible].

[illegible] differs from that which is figured in the [illegible] being broader, and toward [illegible] the Stalk they are placed opposite. The Seeds of this Plant were brought from *Peru*, where the Plant grows naturally, and were sent [illegible] the curious Garden [illegible] Duke *D'Ayen* at *St. Germain*; which have succeeded [illegible] Two last Years in the *Chelsea* Garden. The other Sort, which is figured in the *Clifford* Garden, was sent to *England* by Mr. *Robert Millar*, from *Panama*, in the Year 1735; which succeeded in the *Chelsea* Garden; where it has continued to flower, and produce Seeds every Year; but the Plants of both Sorts perish in Autumn; so that the Seeds must be sown upon an Hot-bed in the Spring, and the Plants brought forward on another; otherwise they will not perfect their Seeds in *England*. The Plants usually grow about Two Feet high, and spread out into lateral Branches on every Side the Stalk: These are garnished with Leaves of the same Shape with those on the main Stem, but are much smaller. Toward the End of these Branches the Flowers are produced singly, upon long Footstalks, arising from the Wing of the Leaf. These have a short Empalement of One Leaf, which is cut into Five Parts: Out of the Center of the Empalement the Flower arises, which is crooked and bent downward: The Top of the Tube is spread open, and the Brim, or open Part of the Flower, has some Resemblance to a lipped Flower, being irregular. It is of a bright blue Colour, [illegible] these fall away, [illegible] Capsule of [illegible] Seeds. It flowers [illegible] Seeds are ripe in [illegible].

When [illegible] the *Chelsea* Garden, I gave it the Title of *Dalea*, in Honour to Mr. *Dale*, an [illegible] a great Friend of Mr. *Ray*'s. By [illegible] to the Royal Society, and printed in [illegible], and also in the Catalogue of the *Chelsea* Garden. And by the same I communicated the Seeds to Doctor *Linnæus*, who afterward changed the Name to *Browallia*, and printed it in the Catalogue of Mr. *Clifford*'s Garden; so that this latter Title is become universal among Botanists.

PLATE



BLATTARIA *alba C: B: P: 244.*

R. Lancake delin. *J. S. Miller Sculp.*

Publish'd according to Act of Parliament by P. Miller. Feb. 24. 1756.


Constantinopolitana, flore
calyce vesicario T. Cor. 6.

Pl XXVIII.



[illegible] del. J. S. Miller Sculp.

Publish'd according to Act of Parliament by P. Miller Feb.y 24. 1756.

Browallia



BRUNELLA, *odorata Lusitanica, flore violaceo Barr. Icon. 561.*

R. Lancake delin. — J. S. Miller sculp.

Publish'd according to Act of Parliament by P. Miller February 23 1756.

Self Heal



BRYONIA *aspera sive alba baccis rubris C. B. P. 297*

R. Lancake delin. — Publish'd according to Act of Parliament by P. Miller, January 24, 1756 — [illegible] sculp

Pl. XIII.

BUGLOSSUM *angustifolium majus flore cæruleo* C.B.P. 256.

... Lancake delin.

...ublished according to the Act by P. Miller Feb. 24th 1755.

T. Jefferys sculp.

Buglosse

PLATE LXX.

BRUNELLA, *Tourn. Inst. R. H.* 182. *Tab.* 84. *Prunella Raii Meth. Plant.* 62. *Lin. Gen. Plant.* 654. Self-Heal; in French, *Brunelle.*

THIS Genus is, by Doctor *Tournefort*, ranged in his Fourth Class of Plants, intituled, *Herbs with a Lip-flower of One Leaf, whose upper Lip is crested, or hooked.* Mr. *Ray* places it in his Fourteenth Class of Plants, whose Flowers grow in Whorls round the Stalks. Doctor *Linnæus* ranges it in his Fourteenth Class, intituled, *Didynamia Gymnospermia*, from the Flowers of this Class having Two long and Two short Stamina, and being succeeded by Four naked Seeds.

The Species here represented are,

FIG. 1. BRUNELLA *odorata Lusitanica, flore violaceo, Barrel. Icon.* 561. i. e. *Portugal* sweet-scented Self-heal, with a violet Flower. *a*, represents the Flower intire, with its Empalement; *b*, the Two longer; and *c*, the Two short Stamina; *d*, the Seeds taken out of the Empalement.

This Plant is, by Doctor *Tournefort*, titled, *Clinopodium Lusitanicum spicatum & verticillatum, Inst. R. H.* 195. and by *Cornutus Bugula odorata Lusitanica, H. Canad.* 46. Doctor *Linnæus* titles it, *Prunella bracteis pinnatodentatis ciliatis, Lœfl. des.* 31. *Sp. Plant.* 601. This Genus is by some Botanists titled *Prunella*, and by others *Brunella*; and by the same Authors the Titles are indifferently used; but the Dispensaries generally have it *Prunella.*

This Plant is annual, perishing as soon as the Seeds are ripe; and if the Seeds are permitted to scatter, the Plants will come up in the Autumn, and live thro' the Winter; so will flower earlier the next Summer than those which are sown in the Spring. The Plants will require no other Care but to be kept clean from Weeds, and to be thinned, if they stand too near each other. They flower in *June*, and the Seeds are ripe in *August* and *September*. It grows naturally in *Spain* and *Portugal.*

FIG. 2. BRUNELLA *major, folio non dissecto, C. B. P.* Greater Self-heal, with an intire Leaf. *a*, represents the Flower. This is the *Prunella vulgaris*, or Common Self-heal, of *Parkinson* and *Gerard.* The Characters of this Plant are exhibited in the *Gardener's Dictionary.*

This Plant grows wild in the Meadows in most Parts of *England*, and flowers in *June* and *July*. This is the Species which is used in Medicine; so we have exhibited a Figure of it. It is much used as a vulnerary Herb, and is brought from *Switzerland*, with several others, under the general Appellation of Wound-Herbs. The Leaves and Flowers of this Plant are used; so the best Time for gathering of this Herb is when it is in full Flower. It is prescribed in *Ptisans*, in *Broths*, and in *Apozems*, for Spitting of Blood, and for the Bloody-flux, and for all Sorts of *Hæmorrhages*, or *Fluxes of Blood.* It is used by way of *Injection* in deep Wounds, and by way of *Clyster* in the *Bloody-flux.*

As this Sort grows naturally in the Meadows, it is not admitted into Gardens; but whoever hath a mind to cultivate it, should sow the Seeds soon after they are ripe, when the Plants will come up much better than when the Seeds are sown in the Spring. The Plants are very hardy, so require no other Care but to keep them clear from large Weeds. They seldom continue longer than Two Years; but the Seeds being permitted to scatter, furnish Plenty of young Plants to supply their Place.

There is another Species of this Plant with cut Leaves; but this is not so common in *England* as the former, but in many Parts of *France* and *Germany*. It is the most commonly found wild, and is indifferently used for the same Purposes as our common Sort.

PLATE LXXI.

BRYONIA, *Tourn. Inst. R. H.* 102. *Tab.* 28. *Bryonia alba, Raii Meth.* 72. *Lin. Gen. Plant.* 970. White Briony, or White Vine; in French, *Coleuvrée.*

THIS Genius is, by Doctor *Tournefort*, ranged in the Seventh Section of his First Class of Plants, intituled, *Herbs with a Bell-shaped Flower of One Leaf,* whose Empalement turns to a fleshy Fruit, or Berry. Mr. *Ray* places it in his Seventeenth Class of Plants, intituled, *Berry-bearing Herbs*; and Doctor *Linnæus* places it in his Twenty-first Class of Plants, intituled, *Monoecia Syngenesia*; the same Plant producing Male and Female Flowers.

The Species here represented is,

BRYONIA *aspera, sive alba, baccis rubris, C. B. P.* 397. The common white Briony, with red Berries, or white Vine.

This is by *John Bauhin* titled, *Vitis alba, sive Bryonia, Hist.* 2. 143. Doctor *Linnæus* titles it, *Bryonia foliis palmatis utrinque calloso-scabris, Hort. Cliff.* 453. in French, *Coleuvrée, ou Vigne blanche.* It is called white from the Colour of the Root, to distinguish it from the *Tamnus*, which in the Dispensaries is titled, *Black Briony*; the outer Skin of the Root being of a dark Colour.

a, represents the male Flower, standing on the Pedicle; *b*, the female Flower, resting on the Embryo, which afterwards becomes a Berry, represented at *c*, which is intire; *d*, the same cut open; *e*, the Seed.

The Roots of this Plant run deep into the Ground, and grow to a large Size. These have been reduced to an human Shape, by fixing a Mould (such as is used by the Image-makers to form their plaister Figures) to the Roots when young, leaving them growing in the Ground; and, if the Mould is not too large, the Root will grow to fill it in One Year, and be of the intended Form. And then they dig up the Roots carefully, with all their Fibres, and exhibit them to View for *Mandrakes*, and have thereby imposed upon ignorant Persons.

The

The white Briony has been generally supposed to be male and female in different Plants; for in many Plants the Flowers have been all male, and in others mostly female: But I have observed that several Plants, which I cultivated in different Parts of the Garden, were of differing Sexes while young; but the Plants which produced only male Flowers, the Two first Years of flowering, afterward had Flowers of both Sexes; but the Number of female Flowers the first Year was small, but as the Plants grew older, they became more fruitful; and the same I have observed in the *Mulberry*, and some other Trees, which produce Flowers of both Sexes.

This Plant grows naturally on the Sides of Banks, and under Hedges, in most Parts of *England*. The young Shoots begin to appear in *March*; these put out Tendrils, which fasten to the Branches of whatever Bushes grow near them, whereby they rise to the Height of Seven or Eight Feet; their pliant Shoots intermixing with the Branches of the Hedges, so are supported from trailing on the Ground. The Flowers come out at the Wings of the Leaves, Two or Three upon each Footstalk. These open in *May*, and are of a whitish-green Colour, being cut into Five Parts almost to the Bottom. The female Flowers rest on the Embryo; which afterward becomes a globular Berry, turning to a bright red Colour, when ripe, which is in the Autumn, when they hang down from the Hedges in small Clusters.

The Roots, Shoots, Leaves, and Berries, of this Plant are used in Medicine, and are esteemed good to remove obstinate Obstructions, being powerfully purgative. The best Season to take up the Roots for Use is in the Autumn, as soon as the Shoots decay; but the Leaves and Shoots are best for Use in the Spring, when they abound with Juice.

PLATE LXXII.

BUGLOSSUM, *Tourn. Inst. R. H.* 133. *Tab.* 53. *Raii Meth. Plant.* 56. *Anchusa, Lin. Gen. Plant.* 167. Bugloss; in French, *Buglose*.

THIS Genus is, by Doctor *Tournefort*, ranged in the Fourth Section of his Second Class of Plants, intituled, *Herbs with a Funnel-shaped Flower, having Four Embryo's seated round the Pointal, which afterward become so many Seeds wrapped in the Empalement of the Flower.* Mr. *Ray* places it in his Thirteenth Class of Plants, which he titles, *Herbs with rough Leaves, having Four naked Seeds succeeding each Flower.* Doctor *Linnæus* has altered the Title of this Genus to *Anchusa*; which Name was applied to One Species of this Genus with red Roots, and by the Title of *Anchusa* has been long known in all the Dispensaries. And Mr. *Ray* thought the Character of its red Roots sufficient to establish a distinct Genus, so he has on that Account separated it from *Buglossum*. This comes into Doctor *Linnæus*'s Fifth Class of Plants, intituled, *Pentandria Monogynia*; the Flower having Five Stamina, and One Stylus.

The Species here represented is;

BUGLOSSUM *angustifolium majus, flore cæruleo, C. B. P.* 256. Greater narrow-leav'd Garden Bugloss, with a blue Flower. *a*, represents a single Flower, with its Tube at full Length; *b*, shews the Front of the Flower depressed, and spread open; *c*, the Empalement of the Flower; *d*, a Seed taken out of the Empalement.

This is the *Buglossum vulgare majus, J. B.* 3. 574. and the *Buglossum angustifolium, Lob.* 576. commonly called Garden Bugloss, to distinguish it from the annual Wild Bugloss; and I believe the Plant here figured doth not differ from the Two following, which are mentioned in *Tournefort*'s *Corollarium*; viz. *Buglossum orientale angustifolium altissimum*; and *Buglossum orientale angustifolium, flore parvo cæruleo*; for I have frequently received Seeds by both these Titles, which have always proved to be the common Garden Bugloss; so that if those are distinct Species, I have not had the good Fortune to see them. There is also a Variety of this with white Flowers; but as there is no other Difference than the Colour of the Flower, so it is scarce worthy of being mentioned.

The Garden Bugloss will continue some Years, when it is in a poor dry Soil; but in rich moist Ground it seldom lasts longer than Two or Tree Years: For when the Plants grow very large, and are replete with moisture, their Roots do frequently rot in Winter. These Plants shoot up several Stems, according to the Age or Strength of their Roots, which rise about Two Feet high, and are garnished with long narrow rough Leaves, which are placed alternately the whole Length of the Stalks. At the Top they divide into Three or Four Parts, which are beset with blue monopetalous tubulous Flowers, growing in a loose Spike (or Thyrsus). These are succeeded by Four rough Seeds, which are inclosed in the Empalement of the Flower, but soon drop out when they are ripe. The Flowers are produced in *June*, *July*, and *August*, and the Seeds ripen in about a Month after the Flowers fall away. It grows wild in *Italy*, *Spain*, in the South of *France*, and in *Germany*.

The Flowers of this Plant are One of the Four Cordial Flowers ordered in the Dispensary; and the Leaves and Roots of the Plant are sometimes used in Medicine, and are supposed to have the same Virtue as Borage; being accounted Cordial, and good to exhilarate the Spirits, and drive away Melancholy.

PLATE

PLATE LXXIII.

Buphthalmum, *C. B. P.* 134. *J. B.* 3. 124. *Chrysanthemum, Clus. Hist.* 332. *Cotula Tourn. Inst. R. H.* 495. *Tab.* 282. *Anthemis Lin. Gen.* 870. Ox-eye; in French, *Oeil de Beuf.*

DOCTOR *Tournefort* ranges this Genus in the Third Section of his Fourteenth Class of Plants, intituled, *Herbs with a radiated Flower, whose Seeds have no Down adhering to them.* Mr. *Ray* joins this Genus to *Chrysanthemum*, and places it in his Seventh Class of Plants with a corymbiferous radiated Flower. And Doctor *Linnæus* ranges it in his Nineteenth Class of Plants, joining this with the *Chamæmelum* of *Tournefort.*

This Species here represented is,

Buphthalmum *Creticum Cotulæ folio, flore luteo, Breyn. Cent.* 1. True Ox-eye, with a Leaf like stinking Mayweed, and a yellow Flower.

Of this there are Two Varieties; one with yellow, and another with white Flowers; which are both mentioned by Doctor *Breynius.* There is also a Third, with naked Flowers, having no Rays, which is, by Doctor *Linnæus*, placed in his Genus of *Anacyclus.* But all these Varieties will arise from the Seeds of the same Plant, as I have many Years observed; and often the Flowers with Rays, and the naked Flowers, have been on the same Branch; so they may truly be made but One sort. These Plants do not only vary in their Flowers, but the Leaves also are different, some being finely divided, and the others having broader Segments; and this is frequent, from the Seeds of the same Plant. This is that with yellow Flowers, and whose Leaves are not so finely divided as those of the white, and is supposed to be the true medicinal Ox-eye.

a, represents the Bud of the Flower, shewing the scaly Empalement; *b*, the Outside of the Flower, when open; *c*, the Rays of the Flower fully expanded; *d*, one of the Half-Florets, or Rays, taken out of the Flower; *e*, one of the Seeds sitting on the Placenta; *f*, a single Seed separated from it.

This is an annual Plant, which perishes soon after the Seeds are ripe; and if the Seeds are permitted to scatter, the Plants will come up in the Autumn; and unless the Winter proves very severe, will live in the open Air; and these will come much earlier to Flower than those which are sown in the Spring, and will grow much larger. Their usual Time of flowering is in *July* and *August*, though there will be some few Flowers succeed those till the End of *September.* The Seeds ripen in about Five or Six Weeks after the Flowers decay. The Plants grow to the Height of Two Feet; and if they are allowed room, do spread out into many lateral Branches, especially in good Land.

This Plant has been continued in most of the Dispensaries for many Ages, and is supposed to be the same which *Dioscorides* recommends, as good for the Jaundice, and to restore the Skin to a good Colour. But of late Years it has been intirely disused in the Shops; and whenever Ox-eye has been ordered, the Greater Ox-eye Daizy has been used. It grows naturally in *Spain* and *Portugal*, from whence I have received the Seeds.

PLATE LXXIV.

Bupleurum, *Tourn. Inst. R. H.* 309. *Tab.* 163. *Lin. Gen. Plant.* 291. *Seseli, C. B. P.* 161. *J. B.* 3. 2. 197. *Dod. Pempt.* 312. Hare's-ear.

DOCTOR *Tournefort* ranges this Genus of Plants in his Seventh Class, intituled, *Herbs and Undershrubs, with a Flower of several Leaves, which expand in Form of a Rose, and grow in an Umbel.* Mr. *Ray* places it under the Title of *Seseli Æthiopicum frutex*, in the Fourteenth Section of his Eleventh Class of Plants which contains the umbelliferous Plants, with simple Leaves; and Doctor *Linnæus* ranges it in his Fifth Class of Plants, intituled, *Pentandria Digynia*; the Flower having Five Stamina, and a double Stylus. The Characters of this Genus are exhibited in the *Gardener's Dictionary.*

The Species here represented is,

Bupleurum *arborescens, salicis folio, Inst. R. H. R.* 310. Tree Hare's-ear with a Willow Leaf. *a*, represents an intire Flower, taken from the Umbel, shewing its Empalement; *b*, shews the Front of the Flower expanded, which is divided into Five Leaves; *c*, represents the Seeds. This is, by *Caspar Bauhin*, titled, *Seseli Æthiopicum salicis folio, Pin.* 161. and by *John Bauhin*, *Seseli Æthiopicum fruticosum folio Periclymeni, Hist.* 3. p. 2. 197. By *Dodonæus* it is titled, *Seseli Æthiopicum frutex, Pempt.* 312. Shrubby Hartwort of *Æthiopia.* By this last Title it is generally known in the Nurseries near *London.* Doctor *Linnæus*, in his Species of Plants, titles it, *Bupleurum frutescens, foliis obovatis integerrimis*, p. 238.

This is an Evergreen Shrub, which will rise to the Height of Five or Six Feet, and divides into many lateral Branches; and may be reduced to a regular Head, by pruning off the lower Branches, so as to make it rise to have a Stem. The Branches are well garnished with oblong, smooth, shining, green Leaves, of a pale soft Colour. These remain through the Year, which renders this Shrub very beautiful in the Winter Season; for as the Branches grow pretty close together, and are furnished with Leaves their whole Length, so it forms an handsome Shrub. The Leaves are placed alternately on

on the Branches, and are Four Inches long, and near One broad in the Middle. The Flowers are produced in Umbels, at the Extremity of every Branch; these are composed of Five narrow Petals, which are of a yellow Colour at first, but fade away to a brown. These are succeeded each by Two long, narrow, striated Seeds, which rarely come to Maturity in *England*. The Time of its Flowering is in *July* and *August*.

This Plant grows naturally in the Southern Parts of *France*, and in *Italy*, and generally along the Coast near the Sea, upon the Rocks. It has been long an Inhabitant in some of the *English* Gardens, where it was, for many Years, preserved in Pots, and placed in Greenhouses in Winter, supposing it was too tender to live abroad in *England*. But of late Years it has been much propagated by the Nursery Gardeners near *London*, and is become a common Shrub in most of their Gardens; where it resists the Cold of the severest Winters, provided it is planted on a dry Soil; and if the Bottom is a Gravel, Stone, or Chalk, with a Foot of Earth thereon, it will prevent the Roots from running deep in the Ground; whereby the Plants will be more stinted in their Growth, so will be hardier to resist the Cold, and of longer Duration, than those which have a rich deep Soil.

The Method of propagating this Shrub being inserted in the *Gardener's Dictionary*, I shall not repeat it here.

The Seeds of this Shrub are much more acrid, and of a stronger Smell, than those of *Marseilles Hartwort*; therefore some Physicians suppose they are possessed of noble Virtues, and consequently, to be more effectual in the *Theriac*.

PLATE LXXV.

Calendula, *Ray Meth.* p. 36. *Tabern.* 231. *Lin. Gen. Pl. Caltha Tourn. Tourn. Inst. R. H.* 498. *Tab.* 284. *Dimorphotheca Vaill. A. C.* 1720. *Cardispermum, Transf. A. Par.* 4. 1724. Marygold; in French, *Souci*.

MR. *Ray* ranges this Genus of Plants in his Eighth Class, intituled, *Herbs with a compound radiated Flower*; and continues the old Title of *Calendula*, given by *Tabernemontanus*, and some other old Writers on Botany, to it. But Doctor *Tournefort* has appropriated *Caspar Bauhin's* Name of *Caltha* to it, and places it in the Fourth Section of his Fourteenth Class of Plants, intituled, *Herbs with a radiated Flower, whose Seeds are inclosed in the Empalement*. But Doctor *Linnæus* has restored the old Title of *Calendula* to this Genus, and has applied that of *Caltha* to the *Populago* of *Tournefort*, which, by most of the old Writers, was titled *Caltha palustris*. Doctor *Linnæus* places this Genus in his Nineteenth Class of Plants, intituled, *Syngenesia Polygamia necessaria*. Mr. *Vaillant*, in the Memoirs of the Academy of Sciences for the Year 1720, has separated these, and some other Species, from the Genus of *Marygold*, and constituted a new Genus of them, under the Title of *Dimorphotheca*; which signifies a Plant having Two Sorts of Ovaries. It was afterwards titled *Cardispermum*, in the Memoirs for the Year 1724, from the Seed being shaped like a Heart. But as the Seeds of some of the Species are of a different Form, so this Title is not very proper. Therefore Doctor *Linnæus* has joined them again, very rightly, to the other Species of Marygold.

The Species here represented are,

Fig. 1. Calendula *foliis dentatis, Flor. Leg. Pr.* 177. Marygold with indented Leaves. *a*, represents the Flower-bud inclosed in the Empalement; *b*, the Backside of the Flower, when open; *c*, the Foreside of the same; *d*, the Seed taken out of the Empalement.

This Plant is, by Doctors *Herman* and *Boerhaave* titled, *Calendula humilis Africana, flore intus albo, foris violaceo simplici Lugd.* 104. *i. e.* Low *African* Marygold, with simple Flowers; which are white within, and of a Violet-Colour on their Outside. Doctor *Linnæus* titles it, *Calendulis foliis lanceolatis denticulatis pedunculis filiformibus, Hort. Upsal.* 274. And Mr. *Vaillant* calls it, *Dimorphotheca foliis incisis, ovariis minoribus. Act. R. S.* 1720.

Fig. 2. Calendula *foliis radicalibus sinuatis, caulinis superne denticulatis, Flor. Leyd. prod.* 177. *i. e.* Marygold with its lower Leaves sinuated, and those on the upper Part of the Stalk indented. *a*, represents the Flower-bud before it opens; *b*, shews the Outside of the Flower when open; *c*, the Inside of the same. This is titled by Mr. *Vaillant*, *Dimorphotheca pubescens, foliis incisis, flore minore, ovariis majoribus. Act. R. S.* 1720. And by Doctor *Linnæus*, *Calendula foliis lanceolatis, dentatis pedunculis superne incrassatis, Hort. Cliff.* 274.

The Seeds of this Plant were brought from the *Cape of Good Hope* (where they grow naturally), into the Gardens in *Holland*, about Sixty Years ago; and from thence all the curious Gardens in *Europe* have been furnished with them. They are both annual Plants, which are hardy enough to thrive in the open Air in *England*; so are very proper Ornaments for the Borders in Flower Gardens. If the Seeds are put into the Ground in *March* or *April*, the Plants will flower in *July*, and the Seeds will ripen in *September*; but if the Seeds are sown at different times, there may be a Succession of flowering Plants for Three or Four Months; but those which come to Flower late in the Season, will not produce good Seeds.

PLATE



BUPHTHALMUM *Creticum Cotulæ folio Breyn. Cent. 1*

R. Lancake del — *J. S. Miller sculp*

Publish'd according to Act of Parliament by J. Miller March 30. 1756.

Ox-eye i.



BUPLEURUM, arborescens Salicis folio



Fig. 1. CALENDULA foliis [illegible] Flor. Leyd. 177.
Fig. 2. CALENDULA foliis [illegible] caulibus superne denticulatis Flor. Leyd. 177.
[illegible] 1756.



Fig. 1. CALENDULA f... linearibus denticulatis & integerrimis Flor. Leyd. pr...
Fig. 2. ASTER caule ramoso scabro perenni, foliis ovatis sessilibus pedunculis nudis unifloris.

R. Lancake del. J. S. Miller sculp.

Publish'd according to Act of Parliament by P. Miller March 20 1756.





Fig. 1. CANNABIS. Mas. C.B.P.
Fig. 2. CANNABIS. Foemina C.B.P.

E. Lancake del. Publish'd according to Act of Parliament by R. Hills March 26th 1736.

Hemp



CAPNOIDES *Tourn. Inst. R. H.*

P. Lancake del — J. S. Miller

Publish'd according to Act of Parliament, by P. Miller March 30. 1756.

PLATE LXXVI.

FIG. 1. CALENDULA *foliis linearibus denticulatis et integerrimis, Flor. Leyd. prod.* 177. i. e. Marygold, with very narrow whole Leaves, which are denticulated. *a*, represents the Bud of the Flower before it opens; *b*, shews the Outside of the Flower when open; *c*, the Inside of the Flower fully expanded; *d*, the Seed.

THIS Plant is titled, by Doctor *Commeline*, *Bellis Africana, florum pediculis foliosis, foliis angustis et integris, Hort. Amst.* 2. 97. by Doctor *Boerhaave*, in the Catalogue of Plants, in the *Leyden* Garden, it is titled, *Caltha Africana foliis croci angustis, florum petalis externè purpurascentibus, internè albis, p.* 113. i. e. African Marygold, with narrow Saffron Leaves, and the Rays of the Flower purple on their Outside, and white within; by *Vaillant* it is called, *Dimorphotheca staticis folio, Vaill. Act.* 1720; and by Doctor *Linnæus*, *Calendula foliis linearibus subintegerrimis, caule subnudo. Sp. Plant.* 922.

The Seeds of this Plant were brought from the *Cape of Good Hope*, in the Year 1698, to *Holland*, where it was first raised in *Europe*; and was figured by Doctor *Commeline*, in the Second Volume of the Plants in the *Amsterdam* Garden, under the Title of *Bellis*, &c. above cited; and, from that Garden, most of the curious Gardens in *Europe* have been furnished with this beautiful Plant: but although this has been long in the *English* Gardens, yet it is not so commonly seen there as might be expected, or as it deserves; for there are few Plants which continue in Flower so long as this, there being scarce any Month in the Year, when there are not some of the Flowers open: but from the Beginning of *March* to the Middle of Winter, there is a constant Succession of Flowers: and as the Plants only require a little Protection from Frost, they are worthy of a Place in every curious Garden.

FIG. 2. ASTER *caule ramoso scabro perenni, foliis ovatis, sessilibus pedunculis nudis unifloris*; Starwort, with a perennial, rough, branching Stalk, oval Leaves set close to the Branches, and a naked Footstalk supporting a single Flower.

The Occasion of this Plant being exhibited here, out of the Order pursued in this Work, was, from its being supposed a Marygold, at the Time when the Figure was drawn on the Plate, which was soon after the Flowers appeared, before the Seeds were so forward as to shew their Down, which sits on their Top, and is one of the distinguishing Characters of Starwort from Marygold; and this being a Plant undescribed, we were induced to exhibit the Figure, therefore hope we may be excused for this Freedom, as we shall be careful not to repeat it. It is probable there may be some who may object to the ranging this Plant in the Genus of *Aster*, because the Flower has a simple Calyx; so would rather have it a *Calendula* or *Orthonna*: But as the first has Two Sorts of Seeds without any Down, so it cannot, with propriety, be placed there. And the *Othonna*, whose Seeds are situated in a downy Receptaculum, differs from this, whose Seeds are crowned with a downy Plume.

The Seeds of this Plant were sent me from the *Cape of Good Hope*, in the Year 1753, but without any Title. The following Spring, two Plants came up from them in the *Chelsea* Garden, which have flourished extremely well there, and have been propagated since in Plenty.

The Plant has many fibrous Roots, from which arises a purplish rough Stalk, which divides into many Branches near the Root, so as to form a low bushy Plant, for it seldom rises much more than Two Feet high; but the Branches will extend more than a Foot on every Side: These are garnished with oval Leaves about an Inch long, and a Third Part of an Inch broad; they are pretty thick and succulent, and are rough to the Touch, coming out at the Joints of the Stalks by Pairs opposite, and sometimes Three at a Joint, or in other Places Two larger and Two smaller at the same Joint, having no Footstalks: Toward the upper Part of the Branches, the Footstalks of the Flower arise, which are from Four to Six Inches long, and naked, each supporting a single radiated Flower. *a*, represents the Flower-Bud, shewing the scaly Empalement; *b*, the under Side of the Flower, when open; *c*, the Inside of the Flower, when fully blown; *d*, the Placenta, with the Seeds sitting with their Down; *e*, a single Seed taken from the Placenta, with the Down on its Top.

The Rays of the Flower are of a fine Sky-blue Colour, which, after they have been some time expanded, turn back toward the Empalement: The Disk of the Flower is yellow. After the Flower falls away, each of the Florets, which compose the Disk, is succeeded by a single Seed, crowned with a soft Down. The whole Plant is a little acrid to the Taste.

This Plant is never destitute of Flowers the whole Year; for, in the Winter Season, there will always be a Number of them in Beauty, though, at that Time, they are not quite so large as in Summer; however, they make a fine Appearance at all Seasons; and as they only require to be protected from Frost, they deserve a Place in every curious Garden. The Plants which I raised in the *Chelsea* Garden, which were placed in a Frame, with wooden Shutters to cover them in the Frost, have been as vigorous, and continued flowering through the Winter, full as well as those which were placed in the Green-house: but as yet I have not tried if they will live in the open Air, as the Plants were in no other *English* Garden; so till a larger Stock of Plants are raised, it is not prudent to try this Experiment: But from what I have observed, it may be supposed, the Plants will live in the open Air, if they are planted in a dry Soil and warm Situation, which will be a valuable Acquisition to the Flower Garden.

PLATE LXXVII.

CANNABIS, *Tourn. Inst. R. H.* 535. *Tab.* 309. *Raii Meth. Pl.* 19. *Lin. Gen. Plant.* 988. Hemp; in French *Chanvre*.

DOCTOR *Tournefort* ranges this Genus in the Sixth Section of his Fifteenth Class of Plants, intituled, *Plants with apetalous Flowers, which are Male and Female in different Plants.* Mr. *Ray* places it in his Fifth Class of Plants, which he titles, *Herbs with stamineous Flowers, which are of Two Sexes*: And Doctor *Linnæus* places it in his Twenty-second Class, intituled, *Dioecia Pentandria*, from the Plant's being Male and Female, and the Flower having Five Stamina. As the Male and Female Hemp arises from the same Seeds, so we have represented them both in this Plate.

FIG.

FIG. 1. CANNABIS, *foliis digitatis mas, Lin. Hort. Cliff.* 475. Male Hemp, with fingered Leaves.

FIG. 2. CANNABIS, *foliis digitatis fæmina, Lin. Hort. Cliff.* 475. Female Hemp, with fingered Leaves.

a, shews the Spikes of Flowers on the Male Plant, which are composed of Five short slender Stamina, supporting oblong square Summits; these are included in an Empalement, cut into Five Parts to the Bottom; *b*, represents the Flower of the Female Plant, which consists of an Empalement of One Leaf, which is permanent; the Flower having no Petals, but in the Center of the Empalement is lodged the Germen, supporting Two long Styles with a pointed Stigma: The Germen afterward becomes a globular depressed Seed, as at *c*, *c*.

Some Authors have distinguished these Plants by the Titles of *Sativa* and *Erratica*; i. e. the manured and the wild Hemp; but as they come from Seeds indifferently, where-ever they are sown, or in Places where the Seeds are accidentally scattered, that Distinction is not proper. There is a Necessity of having some Plants of the Male Hemp among those of the Female, in order to render them prolific: Therefore those should not be drawn out from between the others, until their Spikes of dusty Flowers are quite faded; for in *Lincolnshire*, where a large Quantity of Hemp is generally cultivated, they frequently have drawn out all the Male Plants, which is called *Fimble-hemp*, soon after they were distinguishable; by which they supposed the Female Plants, which are called *Karle-hemp*, would have more Room to flourish; but, by this, they were deprived of the Crop of Seeds; so that, by this dear-bought Experience, they have altered their Method, and do not draw away the Male Plants so soon. I have myself made Trial of this Experiment for several Years, by removing all the Male Plants of Hemp from the Female, as soon as they were discernable; and although the Female Plants have continued strong and flourishing, yet have they never produced any good Seeds.

As Hemp is of such singular Use in this Kingdom, it is great Pity that a much greater Quantity of it is not cultivated in *England*; for there are many large Tracts of boggy light Land, which would produce it as well as any Part of *Europe*; and this might employ many of the Poor, who are, at present, a great Burthen to their Parishes; and hereby a considerable Sum might be saved to the Nation. And in such Places where it is now cultivated, if half the Quantity of Seeds, which is usually allowed to an Acre, were sown, and the Plants left at a much greater Distance than is usually practised, the Produce would be much more; for, by separating and leaving some Plants single, and allowing them Room to spread, they have been Four times as large in their Stems as those which have grown near each other on the same Spot of Ground, and have produced more Hemp than Six of the best Plants which grew near together, in the common Method of Culture.

The Male, or *Fimble-hemp*, is always fit to pull by the End of *August*; for when their Spikes of Flowers are decayed, the sooner they are pulled the better they will be; for they soon begin to shrink and decay, so afford less Hemp. And by doing this in Time, there will be a longer Continuance of Employment for the Poor, in watering and breaking of it; for the Seeds of the Female, or *Karle-hemp*, will not be ripe till after *Michaelmas*, so the Plants must not be drawn up before *October*, for till then they will continue in Vigour. The Seeds of Hemp is the only Part used in Physic, and, at present, those are rarely prescribed; an Oil is drawn from them, which is used for many Purposes; and the Seeds are reckoned very good for Poultry, when given to them in moderate Quantities; for, being warm, it is supposed to cause Hens to lay Eggs in great Plenty. The famous *Bangue*, which is so much used by the *Indians* and *Persians* to promote Venery, is a Species of Hemp; and, by the Descriptions given of it, not much differing from the common Sort.

As this is one of the most conspicuous Plants wherein their different Sexes appear so strongly, we have chosen to exhibit this Plate for that Purpose, rather than for its Beauty.

PLATE LXXVIII.

CAPNOIDES, *Tourn. Inst. R. H.* 423. *Tab.* 237. *Fumaria, Lin. Gen. Plant.* 760. Slender podded Fumitory.

THIS Genus of Plants is, by Doctor *Tournefort*, ranged in his Eleventh Class, which is titled, *Herbs with a polypetalous anomalous Flower, whose Pointal turns to an unicapsular Fruit*; and Doctor *Linnæus* places it in his Seventeenth Class of Plants, intituled, *Diadelphia Octandria*, the Flower having Eight Stamina, which are separated into Two Bodies. Mr. *Ray* has removed the Genus of *Fumaria* to a great Distance from its Congeners, and placed it with a few others in his Twenty-fifth Class, which contains such Genera as he was at a Loss where to range.

There is but One Species of this Genus, which is here represented.

CAPNOIDES, *Inst. R. H.* 423. Podded Fumitory.

a, represents a single Flower taken from the Spike, whose Characters are the same with Fumitory; *b*, shews the Pointal arising from the Bottom of the Empalement; *c*, an intire Pod; and *d*, the Pod opening lengthways, with the Seeds adhering by their Placenta; *e*, the Seeds out of the Pod.

Cornutus, who is the First Author that mentions this Plant, calls it, *Fumaria siliquosa sempervirens*, p. 59. but how he came to add the Epithet of *sempervirens* to it, is not easy to conceive; for it is an annual Plant, which perishes soon after the Seeds are ripe; and it may be supposed, this Appellation has led Doctor *Linnæus* into the Mistake he has made, by joining this to the *Tangier Fumitory*, making them the same Species; to which he also adds the yellow *Fumitory*: But whoever has observed the Three Plants, cannot doubt of their being distinct Species; for the *yellow* and *white Fumitories* are low perennial Plants, which grow close to the Ground, and their Flowers are produced on Footstalks, arising immediately from their Roots; whereas this Plant rises with an upright Stem a Foot and half high, dividing into several Branches; and from the Wings of the Leaves arise the Footstalks of the Flower: The Flowers of this are also larger and more beautiful than either of the other.

As this Plant will come up from the Seeds, which scatter in the Autumn, those Plants will be stronger, and come earlier to Flower, than those which arise from Seeds sown in the Spring: The former do generally flower in *June*, and the latter in *July* and *August*, and their Seeds ripen soon after.

PLATE LXXIX.

Capriolium, *Tourn. Inst. R. H.* 608. *Tab.* 278. *Raii Method.* 145. *Periclymenum, J. B.* 2. 104. *C. B. P.* 102. *Lonicera, Lin. Gen. Plant.* 210. Honeysuckle. In *French, Chevrefeuille.*

DR. *Tournefort* ranges this Genus of Plants in the Sixth Section of his Twentieth Class, intituled, *Trees and Shrubs with a monopetalous Flower, whose Empalement afterward becomes a Berry.* Mr. *Ray* places it among the *Trees with an umbilicated soft Fruit, having several Seeds:* And Doctor *Linnæus* ranges it in the Fifth Class of Plants, whose Flowers have Five Stamina, and a single Stylus; and has changed the Title to *Lonicera*, which *Plumier* had given to a new Genus of Plants which he discovered in *America*; the Flowers of which have some Affinity with those of the *Honeysuckle*, but the Fruit is a large oval Berry, with One Seed: And the Flower, having Six Stamina, hath occasioned the Doctor's removing it to his Sixth Class, in the last Edition of his *Method*; and also to alter the Title of *Plumier*'s Plant to *Loranthus*. So he has continued that of *Lonicera* to this Genus, to which he has added the *Periclymenum, Chamæcerasus, Xylosteum*, and *Diervilla*, of *Tournefort*; also the *Symphoricarpos* of *Dillenius*: But he has separated the *Triostespermum* of *Dillenius* from this Genus, which in the former Editions, he had joined to it.

The Species here represented is,

Caprifolium *Germanicum, flore rubello serotinum, Bros. Inst. R. H.* 608. Late-red flowering Honeysuckle.

a, represents the Tube at the Bottom of the Flower. *b*, the upper Part, which is cut into several Segments, with the Five Stamina stretched beyond the Petals. *c*, the Pointal which is extended beyond the Stamina. *d*, the Berries which inclose the Seeds. The Characters of this Genus are exhibited in *The Gardener's Dictionary.*

This Plant is titled, *Periclymenum perfoliatum serotinum speciosius*, in the Catalogue of the *Royal Garden* at *Paris*: And, by the Nursery Gardeners near *London*, it is called, *The Late-red Honeysuckle*, to distinguish it from another, which approaches near to this, which they call *The Dutch Honeysuckle*. Both these flower later in the Season than *the Italian Honeysuckle*: But this, which is here represented, produces a greater Quantity of Flowers together than either of the former Sorts; so that it makes the finest Appearance, during the Season of its flowering, of any of the Kinds.

It is difficult to determine if these are distinct Species; or Varieties which have been produced from Seeds; but they are all undoubtedly different from our wild *English* Honeysuckle, although they have been generally supposed to be the same: For the *German* Writers having applied to their common Honeysuckle this Title, the *English* Botanists have supposed our wild Sort was the same, so have confounded them together; but whoever will be at the Trouble to examine them, will find a remarkable Difference in the whole Habit of the Two Plants. The *English* Sort hath very slender trailing Branches, which incline to the Ground, unless they are supported by neighbouring Trees; so that it is not possible, by Culture, to train it to a Stem. The Leaves are also smaller, and covered with a fine soft hairy Down; whereas those of the *German* Honeysuckle are large, and more connected to the Stalk, and less hairy: The Flowers are larger, and are formed into globular Bunches.

This Sort is now greatly propagated in the Nurseries, being extremely hardy, and may be trained up with Stems to have large bushy Heads; the Branches, being strong, will support themselves better than those of some other Sorts; and as the Plants make so fine an Appearance when in Flower, it renders them more valuable. The usual Time of their flowering is in *July*.

This Sort has not been so long an Inhabitant of the *English* Gardens, as that which is stiled, *The Dutch Honeysuckle*; for, about Forty-five Years ago, I remember it was esteemed a great Curiosity, when it was called, *The Flemish Honeysuckle*, and was probably brought over by some of the *Flemish* Florists, who at that Time came over annually with Flowers and Plants for Sale.

PLATE LXXX.

Cardiaca, *Tourn. Inst. R. H.* 186. *Tab.* 87. *Raii Method. Plant.* 64. *Leonurus, Lin. Gen. Plant.* 641. Motherwort. In *French, Agripaume.*

THIS Genus of Plants is by Dr. *Tournefort* ranged in the Second Section of his Fourth Class, intituled, *Herbs with a Lip-flower of One Leaf, whose upper Lip (or Galea) is hollow like a Spoon.* Mr. *Ray* places it in the Fifth Section of his Fourteenth Class of Plants, which he titles, *Herbs whose Flowers grow in Whorles round the Stalk, at the Setting on of the Leaves.* Doctor *Linnæus* places it in his Fourteenth Class of Plants, intituled, *Didynamia Gymnospermia.* The Flowers of this Class have Two long and Two short Stamina, and Four naked Seeds succeed each Flower. But he has altered the Title of this Genus to *Leonurus*, which had long been applied to another Genus of Plants, which were Natives of the *Cape of Good Hope*: But these the Doctor has ranged under the Genus of *Phlomis*, though, from the Form of the Flower, I think, they do not any way agree with the Characters of *Phlomis*, as the *Galea* of the Flower is stretched out a considerable Length beyond the lower Lip, and is not curved over it closely, as in the *Phlomis*. But the Doctor's Characters are drawn from the Empalement of the Flower.

The Species here represented is,

Cardiaca *foliis tenuius & profundius incisis glabra, Amman. Ruth.* 49. Smooth Motherwort, with Leaves deeply cut into narrow Segments.

a, represents the Empalement of the Flower. *b*, shews a single Flower taken from the Whorle, exhibiting the Four Stamina with the Pointal, with the upper Lip (or Galea) intire and hollow, and the under Lip (or Beard) cut into Three Parts. *c*, shews the Style which is placed in the Center of the Flower. *d*, the Four Seeds with the Empalement. And *e*, the naked Seeds taken out. Doctor *Linnæus* titles this Plant, *Leonurus foliis tripartitis laciniatis*,

laciniatis, calycibus villosis, Hort. Upsal. 171. i. e. Lion's-tail with tripartite jagged Leaves, and a hairy Empalement.

This Species is a Native of *Tartary*, from whence the Seeds were sent to *Petersburgh*, and were sown in the Imperial Garden there, where the Plants grew and perfected their Seeds; so that from thence all the botanic Gardens in *Europe* have been furnished with the Seeds. There are Two distinct Varieties of this Plant, One of which hath smooth Stalks and Leaves, and the other is very hairy. The Seeds of both Sorts were sent me by Doctor [illegible], late Professor of Botany in the *Imperial Academy at Petersburgh*, which have been several Years growing in the *Chelsea* Garden, and retain their Difference from Seed; so may be allowed to be different Varieties, if not distinct Species; though Doctor *Linnæus* supposes them to be the same.

We have but Two Sorts of Motherwort that are Natives of *Europe*, which are; The common Sort, which is found wild in many Parts of *England*, though it is supposed not a Native here: The other is one with curled Leaves. These Two are by many Botanists supposed to be only Varieties; but, from many Years Experience, I find they constantly keep their Difference from Seeds.

From whence the Sort with curled Leaves was obtained is uncertain. Mr. *Ray* is the First Author who mentioned it, and says, he received the Seeds from *London*, which grew with him. Both these, when once planted in a Garden, will soon multiply, especially if the Seeds are permitted to scatter; for these will grow where-ever they fall, and become troublesome Weeds. The Plants grow to the Height of Four or Five Feet; they flower in *June* and *July*, and the Seeds ripen in Autumn. The Stalks decay in Winter, but the Roots will abide many Years.

PLATE XXXI.

CARYOPHYLLUS, *Tourn. Inst. R. H.* 329. *Tab.* 174. *Raii Meth. Plant.* 109. *Dianthus, Lin. Gen. Plant.* 500. The Pink. In *French, Oeillet.*

TOURNEFORT ranges this Genus of Plants in his Eighth Class, intituled, *Herbs and Under-shrubs, with a polypetalous and Clove-gilly-flower Flower*. Mr. *Ray* places it in his Twenty-second Class of Plants, which he titles, *Herbs with pentapetalous Flowers, having many Seeds included in a Vessel*: And Doctor *Linnæus* ranges it in the Second Division of his Tenth Class of Plants, intituled, *Decandria Digynia*, from the Flowers having Ten Stamina, and Two Styles: And he has changed the Title of the Genus to *Dianthus*, having applied the Title of *Caryophyllus* to the [illegible], to which Doctor *Tournefort* has added the [illegible] *Aromaticus*, to distinguish it from this Genus.

The Species here represented are,

FIG. 1. CARYOPHYLLUS *montanus umbellatus, floribus variis luteis ferrugineis Italicus, Barrel. Observ.* 648. i. e. Umbellated Mountain Pink of *Italy*, with changeable yellow and rusty Flowers.

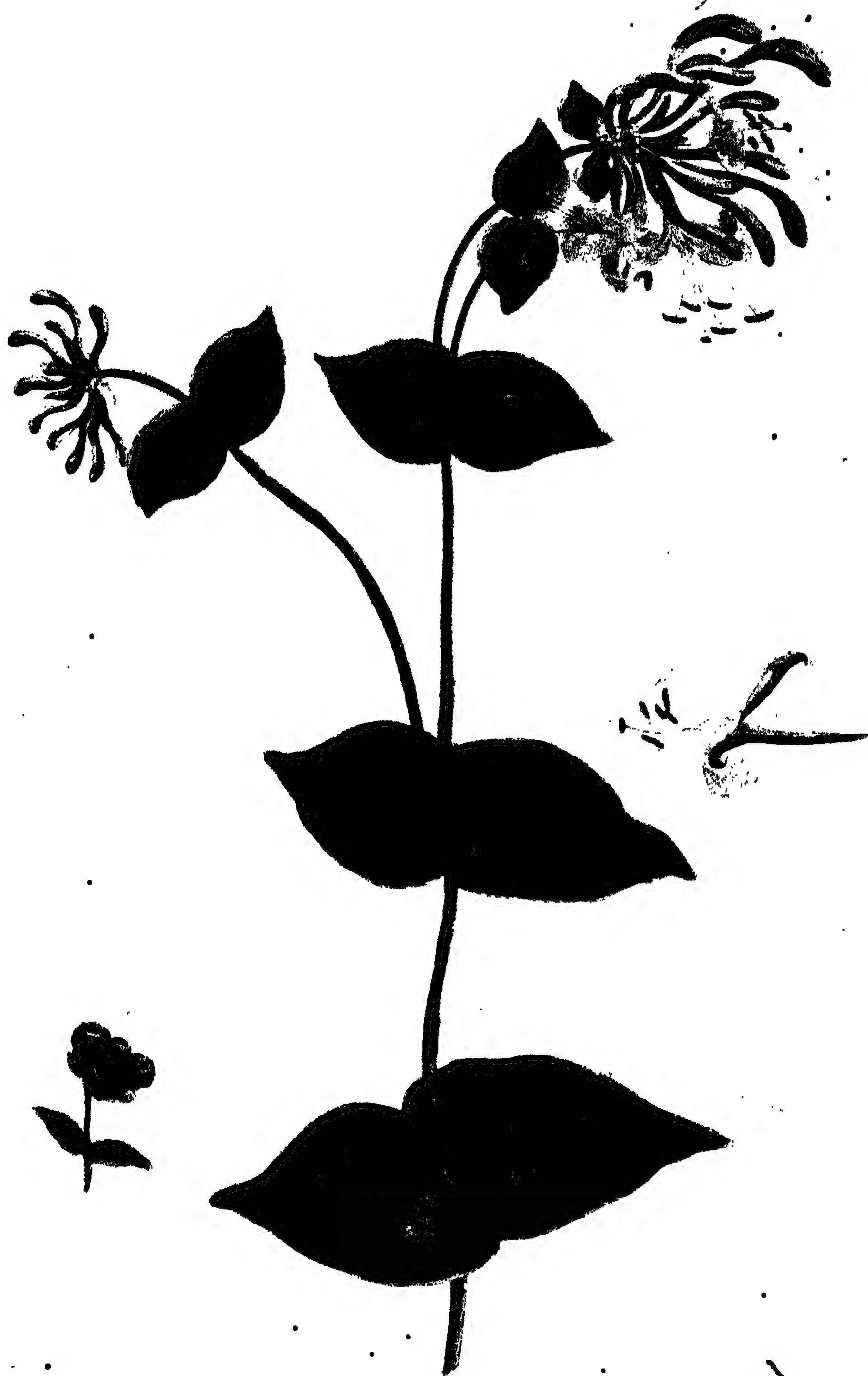
a, represents one of the Petals of the Flower taken out of the Empalement. *b, b, b*, the Ten Stamina crowned with Summits. *c*, the Two Styles situated in the Center of the Flower. *d*, the Seed-vessel cut open, to shew how the Seeds are lodged. *e*, One of the Seeds taken out of the Vessel.

This Plant was discovered by Father *Barrelier*, in the Mountains of *Abruzzo*, in *Italy*, and it has since been discovered in *Spain*, from whence I received the Seeds, which have succeeded in the *Chelsea* Garden. It has the intire Habit of the *Armeria* [illegible], or [illegible]. The Flower-stems rise about a Foot and a [illegible] high, and are garnished with Leaves somewhat like those of the Carnation, but are of a darker Green. These are placed opposite by Pairs; the Tops of the Stalks are terminated by close Umbels of Flowers, each being composed of Five Leaves. Some of these are yellow, and others of a rusty Iron Colour, which often is seen in the same Umbel; but, in general, the different Colours are in different Umbels. The Season of its flowering is in *July*; but, when the Weather proves cool and moist, there will be a Succession of Flowers till the End of *September*. The Seeds ripen in the [illegible]. The Roots of this Plant will abide Two or Three Years, but the young Plants of the Second Year do always produce the greatest Quantity of Flowers; so that it is much the better Method to raise annually young Plants, and destroy the old Roots: But the young Plants do rarely flower the First Year they are raised; so that the Second Year they are in the greatest Perfection: Therefore, to have a constant Supply of the Plants, there should be every Year a fresh Parcel raised from Seeds.

FIG. 2. CARYOPHYLLUS *sinensis supinus, leucoii folio, flore pleno, Boerh. Ind. Alt.* The Double *China* Pink.

This Plant is a Native of *China*, from whence the Seeds were sent by the *French* Missionaries to *Paris*, about the Year 1705; since which Time the Seeds have been dispersed to most Parts in *Europe*. The Plants, which were for many Years produced in the *European* Gardens, were single Flowers, till about the Year 1719, when there were many Plants with double Flowers produced in some of the Gardens at *Paris*; but, whether these arose from Seeds of the single Sort saved in *England*, or were produced from new Seeds obtained from *China*, is difficult to determine; but in the Year 1722, was the first Time I had seen these with double Flowers in any of the *English* Gardens.

There are great Varieties of Colours in these Flowers, which constantly arise from Seeds; so that from the Seeds of One Plant, there will be many different Colours produced. These are a great Ornament to the Flower-Garden in the Autumn; for they continue flowering from *July* until the Frost puts a Stop to them: And, if these Flowers had an Odour equal to their Beauty, they would deserve one of the first Places in a Garden; but [illegible] without any Sort of Scent, which has occasioned [illegible] being too much neglected: For the great Beauty, and Variety of Colours in their Flowers, renders them worthy of a Place in every good Garden. The Flower-stems of these Plants are from Six to Eight Inches high, and the Flowers terminate the Stalks. The Roots will often last two Years, provided they are growing in a dry Soil; but they are generally raised from Seeds every Year.

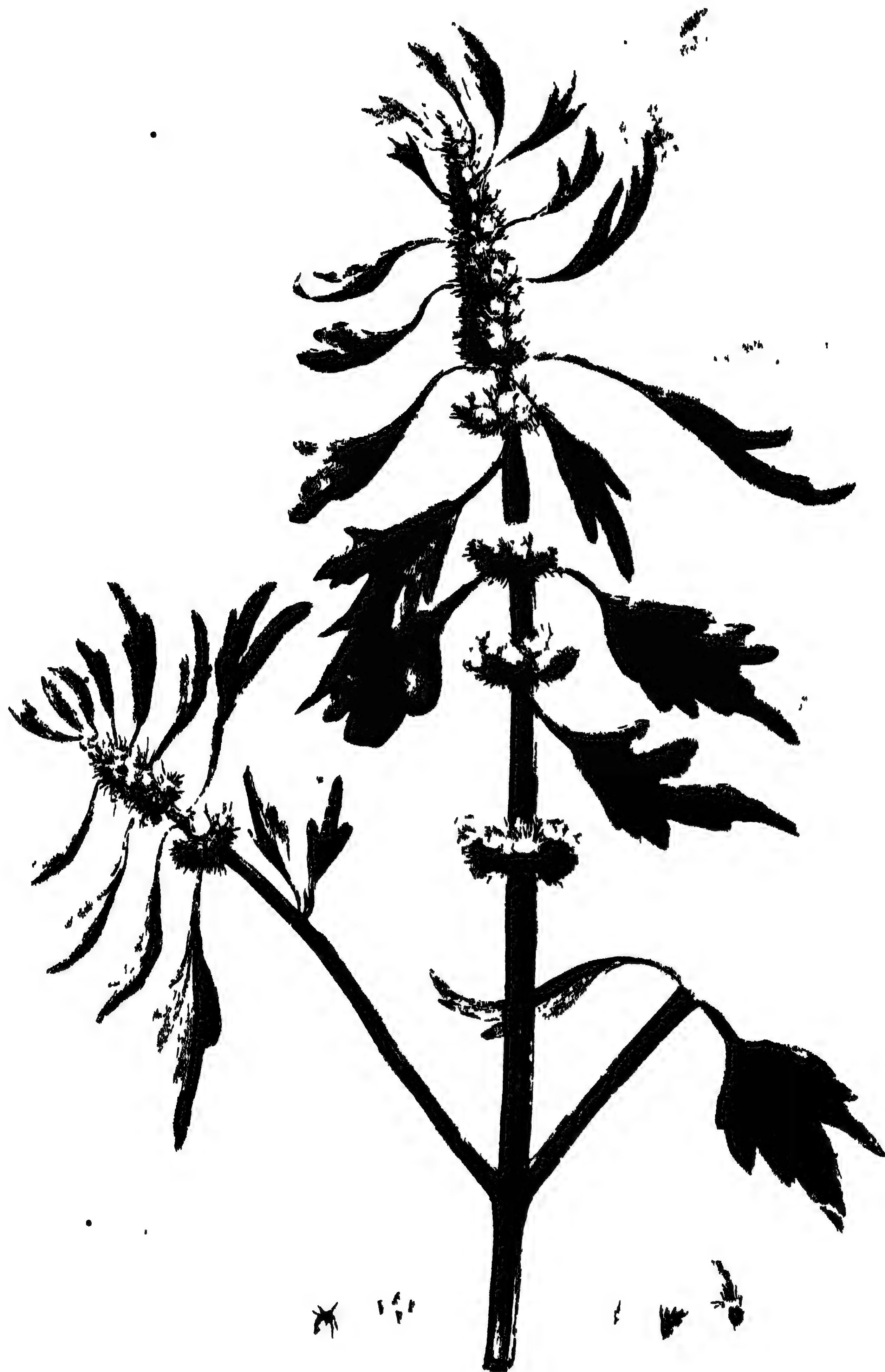


CAPRIFOLIUM [illegible]

[illegible]

Published according to [illegible]

Honeysuckle



CARDIACA



Fig. 1. CARYOPHYLLUS *montanus umbellatus floribus variis luteis ferrugineis Italicus Barr. Ic. 648.*
Fig. 2 CARYOPHYLLUS *Sinensis supinus leucoii folio, flore pleno Boerh. Ind. alt.*

R. Lancake del.

Publish'd according to Act of Parliament by P. Miller . April 27. 1756.



CASSIA *foliolis trijugatis ovatis exterioribus majoribus flore magno, siliqua pentagona alat.* 2.

G. D. Ehret Pinx. *J. S. Miller Sculp.*

Publish'd according to Act of Parliament by P. Miller, 1756

Wild Senna



Fig. 1 CASSINE, …

Fig. 2 CASSINE, …

Cassioberry bush or

South sea tree



CASTANEA

Chesnut

PLATE LXXXII.

CASSIA, *Tourn. Inst. R. H.* 619. *Tab.* 392. *Raii Method. Plant.* 160. *Lin. Gen. Plant.* 461. *Senna spuria, Houst. MSS.* Wild Senna, *vulgò.*

DOCTOR *Tournefort* has placed this Genus of Plants in the fifth Section of his Twenty-first Class, intituled, *Trees and Shrubs with a Rose-flower, whose Pointal turns to a Pod.* Mr. *Ray* ranges it among the Trees with a Flower of Five Leaves, and Doctor *Linnæus* places it in his Tenth Class of Plants, intituled, *Decandria Monogynia*; the Flower having Ten Stamina, and One Pointal. Doctor *Houstoun*, in his Manuscript Catalogue of the Plants which he discovered in *America*, has separated all the Species of this Genus, whose Seeds are not included in Pulp, from those which are; and he has given the Title of *Senna spuria* to that Genus, and retains that of *Cassia* to those whose Pods have Pulp surrounding the Seeds. This Distinction was first made by Doctor *Herman*, but, after his Time, they were joined again by most of the Writers on Botany.

The Species here represented is,

CASSIA *foliolis trijugatis ovatis exterioribus majoribus, flore magno, siliqua pentagona alata*, i. e. Wild Senna (or Cassia) with Three Pair of oval *Pinnæ* to each Leaf, the upper being the largest, a large yellow Flower, and a Five-angle winged Pod.

a, represents the Spike of Flowers arising from Footstalks of the Leaves. *b*, shews a single Flower taken from the Spike, exhibiting the Ten recurved Stamina. *c*, the Pod, which has Five *Alæ*, or Wings, running longitudinally from the small Foot-stalk.

Doctor *Houstoun* titles this Plant, *Senna spuria plerumque hexaphylla, flore magno, siliqua pentagona alata*, MSS. 195. This Plant approaches near to the *Cassia siliqua quadrangulari, Hort. Elth.* in its Leaves; but the Flowers of our Plant are near twice as large, and the Pods are much more turgid than those of the other Plant, and the Wings of the Pods are broader. Beside these Differences, there is another very essential one; which is, the Plant here figured is perennial, and the Stem will become ligneous, whereas the other is an annual Plant.

This Plant was discovered by the late Dr. *William Houstoun*, at *Campeachy*, from whence he sent the Seeds, which were sown in several curious Gardens in *England*, where they have flowered and perfected their Seeds, in those Gardens where there were good Stoves to preserve them through the Winter: For, as the natural Country of this Plant is very hot, so it will not live in *England*, unless it is placed in a warm Stove.

It usually grows about Four or Five Feet high, having a woody Stem, with several lateral Branches. These are garnished with winged Leaves, each having Three Pair of Lobes (or small Leaves), which are broadest at their Extremity, where they are bluntly rounded off. At the Footstalks of the Leaves the Flowers are produced, which are formed into close short Spikes. These are composed of Six Petals (or Leaves), which expand in Form of a Rose, and are of a bright yellow Colour; in the Center of which is situated the Style, attended by the Ten recurved Stamina. After the Flower is past, the Style becomes a Pod of about Six Inches in Length, swelling in the Middle, and having Five Angles, or Borders, lengthways. These contain many Liver-coloured Seeds, which are a little compressed.

The Leaves of this Plant have been substituted for *Senna* in the natural Place of its Growth.

PLATE LXXXIII.

CASSINE, *Lin. Gen. Plant.* 333. *Pluk. Mantiss.* 40. Cassioberry Bush, South Sea Tea, *or* Yappon.

THE Characters of this Genus are exhibited in *The Gardener's Dictionary.* Doctor *Linnæus* ranges it in the Third Division of his Fifth Class of Plants, intituled, *Pentandria Trigynia*, the Flowers having Five Stamina and Three Stigmas.

The Species here represented are,

Fig. 1. CASSINE *foliis ovato-lanceolatis serratis oppositis deciduis, floribus corymbosis.* The Cassioberry Bush, *vulgò.*

This is, by Doctor *Plukenett*, intituled, *Cassine vera perquam similis Arbusculæ Phillyreæ, foliis antagonistis, ex Provincia Caroliniensi, Mantiss.* 40.

Doctor *Linnæus* has supposed this Plant, and the *Phillyrea Capensis folio Celastri, Hort. Elth.* to be the same; and also the *Frutex Æthiopicus alaterni foliis, Seb. Thes.* and has added the *Cerasus Sebestinæ domesticæ foliis aliquatenus accedens* of *Plukenett* to it; whereas they are so many different Plants: Therefore, it may be supposed he has not seen the Plant here figured; for it differs from the *Phillyrea Capensis* greatly in the Shape of the Leaves, those being broader, rounder, and of a much harder Texture, than the *Cassine*, and continue through the Year, being an Evergreen; whereas the Plant here figured, sheds its Leaves in Winter: And it differs from *Seba*'s *Frutex Æthiopicus* in its Leaves growing opposite; whereas those of *Seba*'s Plant are ranged alternately.

a, represents One of the Flowers taken from the Bunch, shewing the Five Stamina. *b*, is one of the Berries, which is intire. These have commonly Three Cells, in each of which is included a single Seed.

Fig. 2. CASSINE *foliis lanceolatis alternis semper virentibus, floribus axillaribus.* South Sea Tea, Yappon, Evergreen Cassine.

This Plant is separated by Doctor *Linnæus* from the other, and placed in his Fourth Class of Plants; and he has join'd it to the common *Holly*, under the Title of *Ilex*, making this and the *Daboon Holly* the same Plant: But if the Doctor had seen the Flowers of the Two Plants, he would not have been guilty of this Mistake; for the Flowers of the Plant here represented, have Five Stamina, and do agree with the other Sort in all the Characters

racters, so should not be separated; nor can any Person, who sees this and the *Daboon Holly*, ever suppose them to be the same Species, as there is a remarkable Difference in all their Parts.

Mr. *Catesby*, who has figured this Plant in his *History of Carolina*, calls it by Doctor *Plukenett*'s Name; *viz.* *Cassine vera floridanorum arbuscula baccifera alaterni ferme facie, foliis alternatim sitis tetrapyrene, Pluk. Mant.* 40. *Catesb. Hist.* Vol. II. p. 57. In his Plate the Plant is figured with the Berries, when ripe, having no Flowers: and it seldom produces Flowers in *England*: Therefore the exhibiting a Branch of it here, was with a Design to shew how it differed from the First Species; because they have been by some Persons supposed the same. Mr. *Catesby* seems positive that this Plant is the same as that which grows at *Paraguay*, the Leaves of which are dried and used for *Tea* in most Parts of the Continent of *New Spain*; so that the Jesuits of *Paraguay* drive a great Trade with it, and draw great Riches into their Province by this Commodity. And I have been well informed, by Persons who have seen the Shrubs there growing, that they have Two different Shrubs, from which they gather Two Sorts of this Tea, which they distinguish by different Titles; and, so far as they remember the Shape of their Leaves, believe them to be the Two Sorts here represented. The Leaves of the First Species are extremely bitter; an Infusion of them is very serviceable in recovering lost Appetites; as also to remove Pains of the Stomach: But it should not be made too strong, lest it prove emetic or cathartic. This Shrub will grow to the Height of Ten or Twelve Feet, and forms itself into a very spreading bushy Head. It often flowers in *July*; but I have not heard of its ripening any Fruit in *England*. It will live abroad in the open Air, if planted in a sheltered Situation; but when it is in a cold strong Soil, and too much exposed, the tender Shoots are frequently killed in Winter.

The Second Sort is an evergreen Shrub, which is not so hardy as the former; so will not live in the open Air in *England*, unless it is planted in a very warm Situation. This seldom grows so large as the former, and very rarely produces Flowers in *England*.

PLATE LXXXIV.

CASTANEA, *Tourn. Inst. R. H.* 584. *Tab.* 352. *Raii Meth. Plant.* 140. *Fagus, Lin. Gen. Plant.* 951. Chesnut. In *French*, *Chetigner*.

DOCTOR *Tournefort* ranges this Genus in his Nineteenth Class, which contains the *Trees and Shrubs with amentaceous Flowers, which are produced in separate Parts from the Fruit on the same Trees.* And Mr. *Ray* places it in his Class of *Trees whose Flowers and Fruit grow at remote Distances*: Doctor *Linnæus* has joined this Tree to the Beech, making it only a Species of that Genus; so has applied the Title of *Fagus* to this, and places it in the Eighth Section of his Twenty-first Class of Plants, intituled *Monoecia Polyandria*, which includes those Plants, which have Male and Female Flowers on the same Plant; and the Flowers have many Stamina.

The Species here represented is,

CASTANEA *sativa*, *C. B. P.* 418. The Manured Chesnut.

This Epithet is generally applied to those Trees which produce large Fruit, which, by the *French*, is distinguished by the Appellation of *Marronier*; but, as the Nuts taken from the same Tree will produce Trees whose Fruit will greatly differ as to their Size, so the Varieties arising from Seeds should not be regarded by Botanists.

a, represents the Spikes of Male Flowers, which are composed of many long slender Stamina, included in a Bell-shaped Empalement of One Leaf, which is cut into Five Parts at the Top. *b*, shews the Spikes of Embryo's, which have no visible Flower, but Three Styles which rest on the Top. These are produced at a Distance from the Katkins, or Male Flowers. *c*, shews a Fruit with its prickly Cover. And *d*, One of the Covers open, shewing the Three Cells in which the Nuts are lodged.

The Characters of this Tree are exhibited in *The Gardener's Dictionary*.

Doctor *Linnæus* has applied the following Title to this Plant, *Fagus foliis lanceolatis accuminato-serratis subtus nudis, Hort. Cliff.* 447. but I think this should not be joined to the Beech-Tree, but continued as a distinct Genus under the Title by which it has been universally known for many Ages; for, as the Male Flowers of the *Beech-Tree* are collected into globular Heads, and those of the *Chesnut* into long cylindrical Spikes, so this Distinction is sufficient to separate them, were there no Difference in their Fruit.

The Distinction which some Authors have made, between what they term the Wild and the Manured Chesnut, is only from the Size of their Fruit, as hath been observed; but I suppose there may be a better Reason for continuing the Appellation of *Manured* to those with large Fruit, because in many Countries, where the Trees are cultivated for their Fruit only, the Inhabitants graft from those Trees which produce the fairest Fruit, whereby they preserve them in Perfection: whereas those Trees which are raised from the largest Nuts will degenerate; so that few of them will produce so large Fruit as their Parent Tree: Therefore, whoever is desirous to have this Fruit in Perfection, should procure Grafts from such Trees as do produce good Fruit, and graft them on young Chesnut Stocks, by which Method they may continue the Kind, and the Trees will be more fruitful than those which are ungrafted.

There can be no Doubt of this Tree having been formerly in great abundance in several Parts of *England*, since many of the old Buildings are found to be principally of this Timber; and there are many Records which mention several Forests of these Trees: But how it has happened that a Tree so common here, whose Timber is so valuable, should be almost extirpated in *England*, is not easy to account for.

PLATE LXXXV.

CAUCALIS, *Tourn. Inst. R. H.* 323. *Tab.* 171. *Echinophora, Col. Ecphr.* 1. 97. *Raii Meth.* 53. *Tordylium, Lin. Gen. Pl.* 293. Bastard Parsley.

THIS Genus of Plants is by Doctor *Tournefort* ranged in the Sixth Section of his Seventh Class of Plants, intituled, *Herbs with umbellated Flowers, ranged circularly, whose Empalement turns to Two large Seeds, which are chanelled with deep Furrows.* Mr. *Ray* places it in the Thirteenth Section of his Eleventh Class of Plants, which he titles, *Plants with umbellated Flowers, and prickly Seeds.* Doctor *Linnæus* has ranged this Plant in his Genus of *Tordylium*, which is included in the Second Division of his Fifth Class of Plants, intituled, *Pentandria Digynia*, the Flowers having Five Stamina and Two Styles.

The Characters of this Genus are exhibited in the *Gardener's Dictionary.*

The Species here represented is,

CAUCALIS *arvensis echinata latifolia, C. B. P.* 152. Broad-leaved prickly Field Bastard Parsley.

a, represents a single Flower taken from the Umbel, shewing the Flower, which consists of Five Parts. *b*, represents a Cluster of Seeds. *c*, the Empalement of the Flower, which is cut into Five acute Segments. *d*, the Two Seeds which succeed to each Flower. *e*, a single Seed separated, shewing the smooth Side.

John Bauhin has titled this Plant, in his History, *Lappula canaria latifolia, sive caucalis, Vol.* 3. *p.* 2. 80. And, by *Columna*, it is titled, *Echinophora quarta major platyphyllos purpurea, Par.* 1. 97. And, by Doctor *Linnæus*, it is intituled, *Tordylium umbella conferta mediusculа, foliis pinnatis, foliolis lanceolatis inciso-serratis, Lin. Sp. Pl.* 240.

This Plant is annual, rising from the Seeds which fall in the Autumn, where they are permitted to scatter, or when they are cultivated in Gardens: The Seeds should be sown soon after they are ripe, otherwise they do not succeed well. The Plants grow about Two Feet high, and divide into Branches, which are deeply chanelled, and covered with Hairs; these are garnished with broad Leaves, which are divided into several Lobes, being deeply cut or jagged, and serrated on their Edges. At the Top of each Branch the Flowers are produced in Umbels, each of these being composed of Three, Four, or Five, smaller Umbels, which are for the most part composed of Seven Flowers; these are of a purple Colour, having Five Leaves, and in the Center is placed the double Ovarium, attended by Five Stamina; these are inclosed in an Empalement of One Leaf, cut at the Top into Five acute Segments. When the Flower is past, the Ovarium swells, and becomes Two Seeds joined close together, covered with a prickly Coat or Cover. It flowers in *June*, and the Seeds ripen in *August* or *September.*

The Plants of this Genus were formerly eaten as Sallad Herbs, but of late they have not been used either in Food or in Medicine; but some of the medical Writers have attributed great Virtues to these Plants. *Matthiolus* says, that these Herbs comfort the Heart, and remove Obstructions of the Liver and Spleen, and cleanse the Bladder and Reins of Gravel, if the Juice of the Herb is drank. There are many other Virtues attributed to these Plants, but at present they are not used. It grows wild in some Parts of *Cambridgeshire*, but not very common. *Lobel* says it is called *Caucalis* from the Form of the Seeds, which resemble oblong hemispherical Vessels.

PLATE LXXXVI.

CEANOTHUS, *Lin. Gen. Plant. Edit.* 5. *Celastrus, Edit.* 1. *Euonymus, Com. Hort. Amst.* 1. *p.* 167. *Pluk. Almag.* 139. Jersey Tea.

DOctor *Linnæus* ranges this Plant in the First Section of his Fifth Class of Plants, intituled *Pentandria Monogynia*, from the Flowers having Five Stamina and One Style. In the Catalogue of the Garden of Mr. *Clifford*, and all his former Writings, he joins this Plant to his Genus of *Celastrus*, or Staff-tree; from which he has since separated it, and constituted a new Genus, of which we have at present Four Species.

The Characters are,

The Flower hath a turbinated Empalement of One Leaf, which is cut at the Top into Five acute Segments, and is permanent. The Flower is composed of Five roundish Petals, which are equal, and do not extend beyond the Empalement, as is represented at a. *In the Centre of the Flower is situated the three-cornered Germen, on which is placed a cylindrical Style having a blunt Stigma; these are attended by Five Stamina, placed opposite to the Petals, crowned with roundish Summits. When the Flower is past, the Germen becomes a three-cornered dry Capsule, represented at* b, *being divided into Three Cells, each having a single Seed, represented* c *and* d; *at* e *is shewn a Cluster of the dry Seed-vessels, as they naturally grow.*

The Species here represented is,

CEAONTHUS *foliis trinerviis, Lin. Sp. Plant.* 195. i. e. Ceanothus with Leaves having Three Ribs or Veins.

This is commonly called *New Jersey Tea*, and by some Gardeners *Carolina Spirea.* This Plant is titled by Doctor *Commelin Euonymus Novi Belgii Corni feminæ foliis, Hort. Amst.* 1. 167. and Doctor *Plukenet* calls it *Euonymus Jujubinis foliis Caroliniensis, fructu parvo fere umbellato, Almag.* 132. *Tab.* 28. *F.* 6. In the *Hortus Cliffortianus*, and the *Flora Virginica*, it is titled *Celastrus inermis, foliis ovatis serratis trinerviis, racemis ex summis alis longissimis*; and, in the Catalogue of the Garden at *Upsal*, Doctor *Linnæus* has titled it, *Ceanothus corymbis folio longioribus*, p. 51.

This Shrub is a Native of *North America*, from whence the Seeds have been brought to *England* by the Title of *New Jersey Tea*, as it is supposed, from the Leaves being used as *Tea* in that Country. It was many Years ago growing in the Bishop of *London*'s Garden at *Fulham*, as also in Mr. *Derby*'s Garden at *Hoxton*, but was for several Years after lost in *England*; and has been recovered again from *America* within a few Years past, so as to be at present pretty common in most of the curious Gardens near *London*. Doctor *Plukenet*, who was the First Author that has mentioned this Plant, has also given a small Figure of it in his *Phytographia*; but it is

too small and imperfect, being drawn from a dried Specimen. Doctor *Commelin's* Figure was drawn from a Plant which had been too tenderly nursed in a Green-house, whereby the Spikes of Flowers are separated, and drawn very loose; whereas when the Plants grow in the open Air, the Flowers are always produced in very close Spikes, as they are represented in the Figure here annexed. In the Description of this Plant, Doctor *Commelin* mentions that the Leaves continued on it all the Winter; and only dropped off in the Summer, when they were immediately succeeded by new ones: But this must have happened from the Plants being too young, and their being kept in a warm Green-house; for all those Plants which grow in the open Air, shed their Leaves in the Autumn, and this they also do in their native Country, so there is no Doubt of its being a deciduous Shrub. The Seeds of this were sent to Doctor *Commelin* from *New Holland*; and I have received Seeds of it from *New England*, *Virginia*, *Philadelphia*, and *Carolina*; so that it certainly grows naturally over the greatest Part of *North America*; for the *French* Writers mention it growing very common in *Canada*, where the Cattle browze on the young Shoots, whereby it is always kept very low; and they recommend the Use of the Root in venereal Cases.

This Shrub seldom rises more than Three or Four Feet high in *England*, branching out on every Side near the Ground. The Branches are very slender; and as it is pretty late in the Spring before they begin to shoot, so, unless the Autumn proves dry and mild, the tender Shoots are often killed down very low by the early Frosts; but, in favourable Seasons, the extreme Parts of the Shoots only are injured by the Cold. These Branches are garnished with oval-pointed Leaves, having Three longitudinal Veins running from the Footstalk to the Point, which diverge in the broad Part of the Leaves from each other: The Leaves are placed opposite by Pairs, and are of a light-green Colour. At the Extremity of each Shoot the Flowers are produced in close thick Spikes, which are composed of Five small Leaves, and are of a clear White: These appear in *July*, and make a very fine Appearance during their Continuance; for, as every Shoot is terminated by one of these Spikes, so the whole Shrub is covered over with Flowers, the Branches commonly growing very close to each other. After the Flowers are past, there succeeds to each Flower a tricapsular Seed-vessel, flatted at the Top, opening into Three Cells, each having a single Seed. In warm Seasons the Seeds will ripen very well in *England*. This Shrub is best propagated by Seeds, which should be sown in small Pots, and plunged into a moderate Hot-bed, to bring up the Plants, which should be enured to bear the open Air by Degrees, as soon as they have obtained a little Strength.

PLATE LXXXVII.

CELASTRUS, *Lin. Gen. Plant.* 239. *Euonymus, Com. Hort. Amst.* 1. 163. *Raii Dend.* 72. *Method. Plant.* 155. *Lycium, Boerh. Ind. alt.* 2. 237. The Staff-tree.

THIS Genus of Plants is ranged by Doctor *Linnæus* in his Fifth Class of Plants, intituled, *Pentandria Monogynia*, from the Flower having Five Stamina and a single Style. The Title of *Celastrus* has been applied to One Species of *Alaternus*, by many of the old Writers on Botany; so Doctor *Linnæus* has revived that Name, and constituted a Genus under that Title, and has applied it to some Plants which were distributed under Two or Three different Genera by former Botanists.

The Characters of the Genus are exhibited in the *Gardener's Dictionary*.

The Species here represented is,

CELASTRUS *spinis nudis, ramis teretibus, foliis acutis, Hort. Cliff.* 72. i. e. Staff-tree with naked Spines, taper Branches, and pointed Leaves. This has been ignorantly titled *Afri..n Berberry* by some Gardeners.

a, represents a single Flower spread open, shewing its Five Leaves, with the Five Stamina which are spread open, as at *b*; and in the Center is situated the swelling Ovarium, supporting the cylindrical Style. *c*, shews an intire Fruit, with its permanent Empalement. *d*, the Fruit cut through transversely, shewing the Three Cells, with the Seeds lodged in them. And *e*, a single Seed taken out of the Fruit.

This Plant is figured, in the *Hortus Amstelodamensis*, by the Title of *Lycium Æthiopicum, pyracanthæ foliis, Vol.* 1. *p.* 163. Doctor *Boerhaave*, in the Catalogue of the *Leyden* Garden, mentions this Plant twice, first under the following Title, *Rhamno similis Africana, fructu triloculari, folio Pyracanthæ, Ind. Alt.* 2. *p.* 212. and afterwards by this Title, *Euonymus Africanus crassioribus foliis sempervirens, capsulâ triloculari asperatâ rubente, Ind. Alt.* 2. *p.* 237. Doctor *Plukenet* gives it the following Title, *Euonymo affinis Æthiopica, Lycii foliis & aculeis, fructu Euonymi, Almag.* 130. *Tab.* 280.

This Plant grows naturally in *Ethiopia*, from whence the Seeds were brought to the Gardens in *Holland*; and, from the Plants which were there raised, most of the curious Gardens in *Europe* have been supplied. It seldom grows more than Three Feet high in the Gardens here. The Stem of this Shrub is generally crooked, and the Branches are irregular and taper. These are garnished with Leaves which are about Two Inches long, and half an Inch broad, some ending in a Point, and others are obtuse; they are stiff, and of a shining green Colour, smooth on their Edges, and are placed without any Order on the Branches. The Flowers are produced loosely in small Tufts, standing upon pretty long Footstalks; these are of a dirty-white Colour, and are composed of Five Petals, which spread quite open, and in the Center is placed a swelling Embryo, crowned with a tapering Style; these are attended by Five Stamina, which arise from the Embryo, and spread open, being situated between the Petals of the Flower, each being crowned with a blunt Summit. After the Flower is past, the Embryo swells, and becomes an oblong pointed Fruit, of a reddish Colour, which opens into Three Cells, in each of which is lodged an oval hard Seed. The usual Time of its Flowering here is in *June*, *July*, and *August*, and the Fruit ripens the Winter following. As these Plants are ever-green, so they make a pretty Variety in the Green-house during the Winter-season, especially when they have a good Quantity of Fruit on their Branches, which, together with some Flowers which are frequently produced at that Season, make a very agreeable Appearance during the whole Winter, which renders this Plant more valuable. The Method of propagating it, together with the Culture, are fully exhibited in the *Gardener's Dictionary*.



CAUCALIS *arvensis echinata latifolia* C. B. P.

R. Lancake delin · · · Sculp

Published according to Act of Parliament ... May 1750

Bastard Parsley



CEANOTHUS *foliis trinerviis Lin. Sp. pl. 195.*

Published according to Act of Parliament by J. Miller May 26 1756



CELASTRUS *spinis nudis ramis teretibus foliis acutis. Lin. Hort. Cliff.*

R. Lancake delin *J. S. Miller sculp*

Published according to Act of Parliament by P. Miller Mar 25 1758

the Staff tree



CELTIS *fructu obscure purpurascente Tourn. 612.*

R. Lancake del. J. S. Miller sculp.

Publish'd according to Act of Parliament by P. Miller May 25th 1756

Nettle tree



Fig. 1. CERASUS *hortensis pleno flore* C. B. P. 450.
Fig. 2. CERASUS *pumila Canadensis oblongo angusto folio flore fructu parvo* Du Hamel

R. Lancake del.

Published according to Act of Parliament by P. Miller May. 25. 1756

PLATE LXXXVIII.

CELTIS, *Tourn. Inst. R. H.* 612. *Lin. Gen. Plant.* 1012. *Lotus arbor, Raii Meth. Plant.* 150. The Lote or Nettle-tree. In *French, Micocoulier.*

THIS Genus of Plants is by Doctor *Tournefort* placed in the Second Section of his Twenty-first Class, intituled, *Trees and Shrubs with a Rose-Flower, whose Pointal turns to a Berry.* Mr. *Ray* ranges it in his Class of Trees whose Fruit is succulent, and joined to the Bottom of the Flower. Doctor *Linnæus* places it in his Twenty-third Class of Plants, intituled, *Polygamia Monoecia,* from the same Tree having Male and Hermaphrodite Flowers.

The Species here represented is,

CELTIS *fructu obscure purpurascente, Tourn. Inst.* 612. *American* Lote or Nettle-tree, with dark-purple Fruit.

a, represents an Hermaphrodite Flower. *b,* a Fruit full grown. *c,* the Fruit cut transversely, shewing its single Cell. *d,* a Seed taken out of the Cell. *e,* the Two crooked Pointals which stand on the Embryo, and are encompassed by the Stamina in the Center of the Flower. Mr. *Ray* titles this Tree, *Lotus arbor Virginiana, fructu rubro, Hist.* 1917. Doctor *Gronovius,* in the *Flora Virginica,* calls it *Celtis procera, foliis ovato-lanceolatis serratis, fructu pullo,* p. 195; and Doctor *Linnæus,* in his *Species Plantarum,* titles it, *Celtis foliis oblique-ovatis serratis acuminatis,* p. 1044.

This Tree grows naturally in *North America,* where it becomes a large Tree: It is generally found on moist rich Ground, in the Woods over most Parts of *North America.* This Species is much more common in *England* than that with black Fruit, though the latter grows naturally in the South of *France,* in *Spain,* and *Italy*; yet is equally hardy, and will bear the Cold of this Climate full as well. But I do not remember to have seen more than Two large Trees of the *European* Sort in any of the *English* Gardens; one of which was growing in the Bishop of *London*'s Garden at *Fulham,* and the other in Doctor *Uvedal*'s Garden at *Enfield*: The latter was standing a few Years since, when I paid a Visit to that Garden; but the other at *Fulham* was cut down, with many other curious Trees, several Years ago.

There are several pretty old Trees, now growing in the Gardens near *London,* of the Sort here figured, which produce great Quantities of Fruit annually, and there seldom comes any Quantity of Seeds from *North America* without having some of these among them; so that it is now become common in most of the Nursery Gardens near *London.* The Flowers of this Tree are produced in *May,* and always appear as soon as the Leaves are put out, so they are fully expanded before the Leaves are grown to half their Size, as may be seen by the Branch here exhibited with the Flowers, which is represented in the natural State of the Tree at that Season; and the other Branch, which is laid at the Bottom, represents their Leaves when grown to their full Size. As it is late in the Spring before the Leaves come out, so they commonly continue as long in Beauty in the Autumn, for they are the latest in fading of any of the deciduous Trees; nor do they alter their Colour long before they fall, but continue in full Verdure till within a few Days of their dropping off; and, so soon as they begin to fall, the Trees will in a few Days be quite destitute of Leaves, so that the Litter which their falling Leaves occasion may be sooner cleared away than that of any other deciduous Tree. There is little Beauty in the Flowers or Fruit of this Tree; but, as the Branches are well clothed with Leaves, which are of a fine green Colour, so the Trees, when mixed with others in Wildernesses, make a pleasing Variety during the Summer Season. The Wood of this Tree, being tough and pliable, is esteemed by Coach-makers for the Frames of their Carriages.

The Leaves of the Sort here represented are much broader and shorter than those of the *European* Kind; which, together with the Colour of the Fruit, makes a sufficient Distinction between them.

PLATE LXXXIX.

CERASUS, *Tourn. Inst. R. H.* 625. *Tab.* 401. *Raii Meth. Plant.* 150. *Prunus, Lin. Gen. Plant.* 546. The Cherry-tree. In *French, Cerisier.*

DOctor *Tournefort* ranges this Genus in the Seventh Section of his Twenty-first Class of Plants, intituled, *Trees and Shrubs with a Rose-shaped Flower, whose Pointal becomes a Fruit having a hard Shell.*

Mr. *Ray* places it in his Class of Trees with moist Fruit which is fastened to the Base of the Flower: And Doctor *Linnæus* ranges it in his Twelfth Class of Plants, which he titles *Icosandria Monogynia*; in this Class he places all those Plants whose Flowers have more than Twenty Stamina. In the last Edition of his *Genera Plantarum,* he has joined to the *Plum* the *Apricock, Cherry,* and *Padus,* of his former Edition, making all of the same Genus; but, although they nearly agree in the Characters of their Flowers, yet, if the Fruit is admitted as one of the Characters, the *Cherry* must be kept separate from the *Plum* by the Shape of the Fruit, and particularly of the Stone, which in Form is very different; nor will the Cherry grow upon a Plum-stock, or the Plum upon a Cherry-stock, by grafting or budding; so that there is an essential Difference in their Nature; for all Trees and Shrubs of the same Genus are found to succeed when budded or grafted upon each other, however they may appear to differ in their outward Form.

The Characters of this Genus are exhibited in the *Gardener's Dictionary.*

The Species here represented are,

FIG. 1. CERASUS *hortensis, pleno flore, C. B. P.* 450. The Manured or Garden Cherry-tree, with double Flowers.

Flowers. This is the *Cerasus multiflora* of *Tabernemontanus*, and *Cerasus pleno flore* of *John Bauhin*.

This Tree is cultivated in the Gardens for the Beauty of its Flowers, which come out in *May*, and, during their Continuance, make a very fine Appearance, each Flower being as double as a common Rose, and of a much larger Size than any of the single Flowers; so that, as the Trees are generally well garnished with them, there are few of the Flowering Trees which make so good an Appearance as this. It is propagated by grafting or budding it upon any common Cherry-stock; but, when they are designed for large Standards, the black or wild Cherry-stock is best; but, if they are intended for low Shrubs, they may be grafted upon the *Bird Cherry*, which will stint their Growth, and cause them to be Dwarfs.

FIG. 2. CERASUS *pumila Canadensis, oblongo angusto folio, fructu parvo, Du Hamel.* Dwarf Cherry, with narrow Leaves, and a small Fruit.

This is probably the same which is described by *Matthiolus*, *Gerard*, and some other Botanists, and was formerly in many of the *English* Gardens. This Shrub seldom rises more than Three or Four Feet high, and divides into many slender Branches near the Ground, which are covered with a reddish brown Bark; these are garnished with long narrow Leaves, which are whitish on their under Side, and of a light Green on their upper Side, coming out without any Order. The Flowers come out Two or Three together at each Joint, the whole Length of the Branches, supported by long slender Footstalks, each having Five Leaves, which are much narrower than those of the common Cherry; these are succeeded by a small red Fruit, which is of an acid Taste. It flowers in *May*, about the same Time as the common Cherry, and the Fruit ripens in *July*. The Branches of this Shrub, being laid down in the Ground, take Root, so may be easily propagated by that Method. The Seeds of this Cherry were sent me from *Paris* by the Title of *Ragouminier*, which I find is the Name given to it in *Canada*, where they also call it *Nega*, or *Minel*. This Shrub may be planted in Wilderness Quarters, where, being intermixed with others of the same Growth, it will add to the Variety.

PLATE XC.

CEREUS, *Par. Bat.* 122. *Boerh. Ind. Alt.* 1. 292. *Juss. Act. R. S.* 1716. *Cactus, Lin. Gen. Plant.* 539. Torch Thistle.

THIS Genus of Plants is by Doctor *Boerhaave* placed among those Plants which have many Pods succeeding to each Flower, which by no means agrees with this Plant; but it would more properly come under his Class of Apple-bearing Plants, where he has placed the *Opuntia*. Doctor *Tournefort* has not mentioned this Genus in his Institutions of Botany; though many of the Species had been figured and described by *Herman*, and other Botanists, before *Tournefort*. Mr. *Ray* has inserted this Genus, with some others which were omitted in his *Method of Plants*, in an Appendix to that Book. Doctor *Linnæus* ranges this Genus in his Twelfth Class of Plants, intituled, *Icosandria Monogynia*, the Flowers having many Stamina and One Style; and he has joined to this Genus the *Opuntia* and *Melocactus* of *Tournefort*, and the *Pereskia* of *Plumier*.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The Species here represented is,

CEREUS *scandens minor polygonus articulatus, Par. Bat.* 120. Smaller creeping Torch Thistle, with jointed Branches having several Angles. It is also titled, by Doctor *Herman*, *Cereus curassavicus amplexicaulis polygonus minor, Par. Bat.*; and, in the *Hesperides Norimbergensis*, it is called *Cereus Americanus major articulatus, flore maximo nocte se aperiente, suavissimum odorem spirante, Vol.* 1. *p.* 133. *Tab.* 234. Doctor *Linnæus* titles it *Cactus repens subquinquangularis, Sp. Plant.* 467.

a, represents the scaly Empalement of the Flower, which is composed of many narrow long Leaves, which are of a yellowish Colour within. *b*, shews the white Petals of the Flower. *c*, the Style in the Center of the Flower, which is divided at the Top into many slender Segments. *d*, the Stamina of the Flower, with their blunt Summits, which immediately surround the Style. *e*, represents the Bud of the Flower before it opens. *f*, the Embryo of the Fruit, which, in the Country where it grows naturally, swells to the Size of a Bergamot Pear; but, in *England*, the Whole falls off together, without producing any Fruit.

It grows naturally in the Islands of *America*, where the Branches fasten their Roots into the Bark of Trees, whereby they support themselves, and climb to the Tops of the tallest Trees.

In *Europe* this Plant is preserved in Stoves, being too tender to live through the Winter here without artificial Heat. If the Pots, in which these Plants grow, are placed against the Wall of the Hot-house, the Branches will put out Roots which will fasten themselves to the Wall, and may be trained to the Top of the Hot-house; and, where there is a sufficient Height for them to grow, they will in a few Years run to a great Extent, and will produce a great Number of Flowers annually. These Flowers are of short Duration, never continuing in Beauty above Eight or Ten Hours; beginning to open in the Evening between Seven and Eight of the Clock, are fully blown by Eleven, and by Three or Four the next Morning fade, and hang down quite decayed; but, during their Continuance, there is scarce any Flower of greater Beauty, or that makes a more magnificent Appearance; for the Calyx of the Flower, when open, is near a Foot Diameter; the Inside of which, being of a splendent yellow Colour, appears like the Rays of a bright Star, and the Petals of the Flowers being of a pure White adds to the Lustre; and the vast Number of recurved Stamina, surrounding the Style in the Center of the Flower, make a fine Appearance; and add to this the fine Scent of the Flower, which perfumes the Air to a considerable Distance: There is scarce any Plant which deserves a Place in the Hot-house so much as this; especially as it is to be trained against the Wall, where it will not take up Room. The usual Season of its Flowering is in *July*; and, when the Plants are large, they will produce a good Number of Flowers, so that there will be a Succession of them for several Nights, and many of them will open the same Night: I have frequently had Six or Eight Flowers open at the same time, which have made a most magnificent Appearance by Candlelight; but none of them have been succeeded by any Appearance of Fruit.

PLATE XCI.

CERINTHE, *Tourn. Inst. R. H.* 79. *Tab.* 16. *Raii Meth. Plant.* 57. *Lin. Gen. Plant.* 171. Honeywort. In *French, Melinet.*

TOurnefort places this Genus in the Third Section of his First Class of Plants, intituled, *Herbs with a Bell-shaped Flower of One Leaf, whose Pointal turns to a dry Fruit having Two oblong Seeds.* Mr. *Ray* ranges it in his Thirteenth Class of Plants, which he titles *Herbs with rough Leaves*; and Doctor *Linnæus* places it in his Fifth Class of Plants, intituled, *Pentandria Monogynia*; the Flower having Five Stamina, and a single Style.

The Characters of this Genus are exhibited in the *Gardener's Dictionary.*

The Species here represented is,

CERINTHE *quorundam major, flore ex rubro purpurascente, J. B.* 3. 603. Greater Honeywort, with a purplish red Flower.

a, shews a Flower cut open, representing the Stamina at *b*. *c*, represents the Empalement of the Flower with its Pointal. *d*, the Seed-vessel containing Two Seeds.

This is the Third Sort mentioned in the *Gardener's Dictionary.*

Caspar Bauhin titles it *Cerinthe flore ex rubro purpurascente, Pin.* 258. Doctor *Linnæus* joins this Species to that with yellow Flowers, making them only different Varieties, under the following Title, *Cerinthe foliis amplexicaulibus, fructibus geminis, corollis obtusiusculis patulis, Sp. Plant.* 136. *i. e.* Honeywort, whose Leaves embrace the Stalks, with a double Fruit, and a spreading obtuse Flower. But although, from the Colours of the Flowers of the Two Sorts only, they may be esteemed Varieties; yet I could never find that either of them changed or altered their Colours from Seeds; for I have cultivated both Sorts for Thirty Years, and have always found, that the Seeds produced Plants with the sa[...]oured Flowers as those from which they were gathe[...] These Plants grow naturally in *Italy*, *Spain*, and [...] Parts of *Germany.*

The *Bees* are very fond of these Plants; [...]at, during their Continuance in Flower, they a[...]onstantly flying from Flower to Flower, and su[...] out the mellous Liquor which is lodged in the B[...] of each. The Flowers of these Plants do general[...]ng downward; so that the *Bees* are upon the Wi[...]uring their thrusting their Proboscis up the Flowers [...]t out the Liquor. I believe there can be no dou[...] this Plant being the same with what the antient [...]*ns* mention under the same Appellation. *Virgil* [...] it *Cerinthæ ignobile gramen*; which Epithet may p[...]bly be given to this Plant, from its becoming a [...] troublesome Weed, and that no Cattle will eat it. [...]r these Plants do produce a great Number of Seeds, [...]ich in a warm Climate do vegetate immediately af[...]ain, whereby the Ground is filled with the Plants [...]nd as, in those warm Countries, there may be Th[...]r Four Successions of Plants from Seeds in One [...]r, so they may be ranged among those which a[...]esteemed as bad Weeds. However, as it is a favou[...] Plant of the *Bees*, so those Persons who have an *Apia*[...] should cultivate a Number of these Plants in their G[...]ns, where, by the Diversity of their spotted Leaves, [...] hanging Flowers of different Colours, they will ad[...] the Variety.

They are annual Plants, which [...]own in the Spring, do flower in *July* and *August*, a[...]heir Seeds ripen in *September*; which if permitted t[...]atter, the Plants will many of them come up the same[...]utumn; and in moderate Winters, or if growing in [...]warm Situation, they will live through the Winter; a[...] these autumnal Plants will grow much larger than th[...] which are sown in the Spring, and will flower at leas[...] Month earlier: But as the Stems of these Plants ar[...]ucculent, a very hard Frost generally kills them.

PLATE XCII.

CHELIDONIUM, *Tourn. Inst. R. H.* 231. *Tab.* 116. *Lin. Gen. Plant.* 572. *Chelidonium majus, Raii Meth. Pl.* 100. The greater Celandine; in *French, Chelidoine,* or *Eclaire.*

TOurnefort ranges this Genus of Plants in the Sixth Section of his Fifth Class, intituled, *Herbs with a cross shaped Flower, whose Pointal turns to a Pod with One Cell.* Mr. *Ray* places it in the Fourth Section of the Twentieth Class of Plants, which is titled *Herbs with anomalous Flowers of Four Leaves.* Doctor *Linnæus* ranges it in his Thirteenth Class of Plants, intituled, *Polyandria Monogynia*; the Flowers having many Stamina, and One Style. To this Genus he joins the *Glaucium* of *Tournefort.*

The Characters of this Genus are exhibited in the *Gardener's Dictionary.*

The Species here represented are,

FIG. 1. CHELIDONIUM *majus vulgare, C. P. B.* 144. The common greater Celandine. This is the *Chelidonia* of *John Bauhin*, Par. 3. 482. and *Chelidonium majus, Dod. Pemp.* 48.

a, represents the Petal[...]f the Flower, which are Four in Number, placed in [...]m of a Cross. *b*, the single Style in the Center. *c*, [...]e many Stamina. *d*, the Pod laid open. *e*, the See[...]

FIG. 2. CHELIDONIU[...] *majus, foliis quernis, C. B. P.* 144. Greater Cel[...]dine, with Oak Leaves. This is the *Chelidonium f*[...]*o laciniato* of *John Bauhin*, 3. 483. and the *Chelidoni*[...] *majus laciniato flore, Clus. Hist.* 203. Doctor *Li*[...]*eus* supposes these to be only seminal Varieties; [...]joins them together under the following Appellati[...]. *Chelidonium pedunculis umbellatis, Spec. Plant.* 505[...] But, from upwards of Thirty Years having cultivat[...] both these Plants, I could never find they alter[...], but their Seeds always produced the same as th[...] Parent Plant. But there is another Species menti[...]ed by some Writers on Botany, by the following Ti[...] *Chelidonium majus, foliis & flore minutissimè lacin*[...]*tis, H. R. Par.* which is only a Variety of the Secon[...] Sort: for I have frequently had Plants produced fr[...]m the Seeds of that, whose Leaves and Flowers we[...] much finer cut, and jagged, than those of the Par[...]t Plant: And these Varieties are frequently see[...] growing together; but I never saw the

common Sort rise from the Seeds of those, nor do the Seeds of the common ever produce these; therefore they may be allowed as different Species.

The First Sort grows wild in uncultivated Places, and on the Sides of Banks in divers Parts of *England*, and flowers in *May* and *June*. The Second Sort is only to be found in some particular Places where it has been sown; but if the Seeds are permitted to scatter, the Plants will come up, and maintain their Situation in as great Plenty as the common Sort, and become a troublesome Weed in Gardens.

The common Sort is used in Medicine, and is esteemed aperitive and cleansing, opening Obstructions of the Spleen and Liver; and is in great Use in Curing of the Jaundice and Scurvy. It is also by some reckoned to be cordial, and a good Antidote against the Plague. A Quantity of this Herb is put into the Composition of *Aqua Mirabilis*. The Juice of this Herb is used outwardly to take away Warts, Specks, and Films; as also for Tetters, Ringworms, and scurfy Breakings-out. The bruised Herb, mixed with Hogs Lard, being applied to Warts, will consume them, as I have frequently experienced. The Juice of this Plant is by some recommended to be applied to the Eyes, to eat off Films; but as it is very full of Acrimony, so it may be very dangerous, unless it is mixed with other Things to blunt the Edge of its Acrimony, as Milk is said to do. It may also be unsafe to administer this inwardly without the same Precaution.

In the last Edition of *Ray's Synopsis*, this Plant is intituled *Papaver corniculatum luteum, Chelidonia dictum, p.* 309. to distinguish it from the *Chelidonium minus Ger.* which Dr. *Tournefort* has placed in the Genus *Ranunculus*, and Doctor *Boerhaave* has separated from the *Ranunculus*, and put under the Title of *Chelidonia*, from the Empalement of the Flower having Three Leaves.

PLATE XCIII.

CHELONE, *Tourn. Acad. Reg. Sc.* 1706. *Tab.* 7. *Fig.* 2. *Flor. Virg.* 70. *Dillen. Gen.* 11. *Lin. Gen. Plant.* 666.
We have no *English* Name for this Plant.

THIS Plant should be ranged in the Fourth Section of *Tournefort's* Third Class of Plants, intituled, *Herbs with an anomalous personated tubulous Flower of One Leaf*; and, according to Mr. *Ray's* Method, it should be ranged in his Nineteenth Class of Plants, intituled, *Herbs with an irregular Flower of One Leaf, having many Seeds in a Capsule.* Doctor *Linnæus* places this Genus in his Fourteenth Class of Plants, intituled, *Didynamia Angiosperma*; the Flowers having Two long and Two shorter Stamina, and many naked Seeds succeeding each Flower.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The Species here represented is,

CHELONE *floribus speciosis pulcherrimis colore rosæ damascenæ, Clayt. Flor. Virg.* 71. Chelone with a specious Flower of the Colour of the Damask Rose.

a, represents the Corolla of the Flower split open. *b* and *c*, the Four Stamina, Two longer than the other. *d*, the Stylus. *e*, an intire Seed-vessel. *f*, the Seed-vessel cut through, shewing the Two Cells. *g*, the Seed.

There are Two or Three more Species of this Genus of Plants; one with a white Flower, which is the most common in the *English* Gardens, another with a pale blue Flower, which is at present very rare in *England*; and one which is called *The Humming Bird Tree* by *Joscelin*, in his *New England Rarities*. This is also pretty rare in *England* at present. They are all Natives of *North America*, where they generally grow upon boggy Places, and propagate much by their creeping Roots. The Sort here represented is the most beautiful, the Colour of the Flowers being of a deep Red, and the Flowers are somewhat larger than those of the white. This is the Second Sort mentioned in the *Gardener's Dictionary*, which was sent from *Virginia* by Mr. *Clayton* a few Years past. These Plants are very hardy, and propagate fast by their creeping Roots; but they require a moist Soil and a shady Situation. They flower in *August* and *September*, but do rarely produce good Seeds in *England*; so are only propagated by parting of their Roots, which is best done in *March* before they put out their Shoots, when they will soon make new Roots, and these will be established before the dry Season comes on; for if they are transplanted late in the Spring, they will not have Time to get good Rooting in the Ground before the Heat of Summer; so that if the Season proves dry, they will not make any great Appearance that Year in Flower; and those which are transplanted in the Autumn, seldom do well if the Winter proves severe or very wet; therefore the Spring is by much the most eligible Time to part and transplant these Plants.

As these Plants flower in Autumn, when there is a Scarcity of other Sorts, so it renders them more valuable. Their Shoots generally rise Two Feet high, having their Leaves placed opposite, whose Base joins the Stem without any Footstalk; and sometimes there are Three Leaves produced at the same Joint, surrounding the Stem. The Leaves are from Two to Three Inches in Length, ending in a blunt Point. They have several transverse Veins in them, and are sawed on their Edges. At the Top of the Stalk, the Flowers are produced in Spikes, each coming out from a leafy Cover, which before closely embraces the Flower Buds; so that they seem to be placed *imbricatim*, like the Tiles on an House; but when the Flowers push forward, they are extended a considerable Length beyond those leafy Covers. The Flowers are of One Leaf, are tubulous, and open at their Extremity, somewhat like those of the *Snapdragon*; but, instead of the upper Part being reflexed as in that Flower, these are bent over the *Labia*, so as to form some Resemblance of a *Tortoise*; from whence Doctor *Tournefort* applied this Title of *Chelone* to the Genus.

PLATE



CERINTHE *quorundam major flore ex rubro purpurascente.* J. B.

R. Lancake del. J. S. Miller Sculp.

Publish'd according to Act of Parliament by P. Miller June 28. 1756.

Honeywort



Fig. 1. CHELIDONIUM majus vulgare C.B.P. 144.
Fig. 2. CHELIDONIUM majus foliis quernis C.B.P. 144.

R. Lancake del — J. S. Miller sculp.

Publish'd according to Act of Parliament by P. Miller Jan. 22 1756.

the greater Celandine



CHELONE *foliis ovato-lanceolatis serratis floribus rubris.* —

—*Publish'd according to Act of Parliament by P. Miller*

Chelone



CIRSIUM *majus Singulari capitulo squamato vel incanum alterum* C.B.P.

R. Lancake del.

Published according to Act [illegible]

Melancholy Thistle



CLINOPODIUM *foliis ovatis rugosis verticillis crinitibus distantibus.*

R. Lancake del. J. S. Miller Sc.

Publish'd according to Act of Parliament by P. Miller June 28.1756

Field Basil



CLYMENUM, *Hispanicum flore vario siliqua articulata Tourn. inst. 396*

J. S. Miller sculp.

R. Lancake del.

Publish'd according to Act of Parliament by P. Miller Jan. 26 1...

Chickling ...

PLATE XCIV.

Cirsium, *Tourn. Inst. R. H.* 447. *Tab.* 255. *Casp. Bauhin. Pin.* 377. *Raii Meth. Plant.* 40. *Carduus, Lin. Gen. Plant.* 832. The great *English* soft, gentle, or melancholy Thistle.

Doctor *Tournefort* ranges this Genus in the Second Section of his Twelfth Class of Plants, intituled, *Herbs with a flosculous Flower, whose Seeds have a Down adhering to them.* Mr. *Ray* places it in his Ninth Class of Plants, intituled, *Herbs with a compound Flower, whose Floscules are tubulous, and inclosed in a common Empalement, formed in an Head.* Doctor *Linnæus* ranges it in his Nineteenth Class of Plants, intituled, *Syngenesia polygamia æqualis*, from the Stamina being joined in each Tube, and Male and Female Flowers in the same common Empalement. He has joined this Genus to the *Carduus*, or Thistle; but Doctor *Tournefort*, and others, have separated from that Genus all those Plants whose Leaves and Heads are not armed with Spines.

The Characters of this Genus are exhibited in the *Gardener's Dictionary.*

The Species here represented is,

Cirsium *singulari capitulo squamato, vel incanum alterum*, *C. B. P.* 377. Soft or melancholy Thistle, with hoary squamose Heads.

a, represents the Embryo of the Seed at the Bottom of the Floret *b*, where the Five Stamina and Stylus is shewn. *c*, is One of the Seeds taken out, with the Plume on its Top. *d*, shews the Stamina taken out of the Floret.

This is the *Cirsium Britannicum Clusii repens, J. B.* 3. 46. and the *Cirsium Anglicum 1, Clus. Hist.* 168. By Doctor *Haller* it is titled *Cirsium foliis longe lanceolatis serratis, subtus tomentosis, Helv* 683. and by Doctor *Linnæus, Carduus foliis lanceolatis dentatis amplexicaulibus, spinulis inæqualibus ciliatis, caule inermi, Hort. Cliff.* 392. *i. e.* Thistle with Spear-shaped indented Leaves embracing the Stalks, having soft Spines and a smooth Stalk.

This Plant grows naturally near *Ingleborough Hill* in *Yorkshire*. I found it in the Park adjoining to *Burrough Hall*, the Seat of *Robert Fenwick*, Esquire; but in these uncultivated Places where it grows wild, the Stalks seldom rise much above a Foot high; whereas, in Gardens, it is generally double that Height, and the Leaves are so much larger, that it seems a different Plant, but, by transplanting it into Gardens, it soon discovers itself by its greater Growth. The Stalk is single, arising immediately from the Root, and is garnished with Leaves, which are Four or Five Inches long, and One and an half broad at their Base, where they embrace the Stalk. These are of a shining green Colour on their upper Side, and white underneath, being slightly indented on their Edges, where they are beset with fine soft Prickles. These are placed alternately. On the Top of the Stalk is produced a single Head, like that of a Thistle, and at the Joints are often single Heads produced, having a soft, hairy, scaly Empalement, in which is contained many Female and Hermaphrodite Flowers of a purple Colour, which rest on the Embryo's, on a downy Placenta. The Seeds are also crowned with Down. The Roots of this Plant do creep far under the Surface of the Ground, whereby it propagates very fast, especially in a light Soil.

This Plant is seldom preserved in Gardens, unless for the sake of Variety; but I have seen it much cultivated in some Gardens of Quacks, who pretend to cure Madness with it, which probably may have been occasioned by the *English* Appellation of *Melancholy Thistle* given to it by *Parkinson*.

PLATE XCV.

Clinopodium, *Tourn. Inst. R. H.* 194. *Tab.* 92. *Raii Meth. Plant.* 94. *Lin. Gen. Plant.* 644. Field Basil.

Tournefort ranges this Genus in the Third Section of his Fourth Class of Plants, intituled, *Herbs with a labiated Flower of One Leaf, whose upper Lip is erect.* Mr. *Ray* places it in his Fifth Section of the Fourteenth Class of Plants, intituled, *Herbaceous Plants with verticillate Flowers and opposite Leaves.* Doctor *Linnæus* places it in his Fourteenth Class of Plants, titled *Didynamia Gymnospermia*, from the Flowers having Two long and Two short Stamina, and being succeeded by naked Seeds.

The Characters of this Genus are exhibited in the *Gardener's Dictionary.*

The Species here represented is,

Clinopodium *foliis ovatis rugosis, verticillis remotis distantibus*, i. e. Field Basil with oval rough Leaves, and the Whorles of Flowers standing at a great Distance.

a, represents a single Flower separated from the Whorles, with its Empalement. *b*, the upper Lip of the Flower spread open. *c*, the Four Stamina, Two long and Two shorter. *d*, a single Seed.

This Plant is a Native of *Egypt*, from whence the Seeds were sent to *Europe*, and the Plants have for some Years past grown in many curious Gardens. It hath a

perennial

perennial Root, but annual Stalks, which grow a Foot and an half high. These are garnished with oval Leaves, having many transverse deep Furrows, and are of a dark green Colour, placed opposite, at about Five or Six Inches asunder. There are commonly Two or Four Side-Branches from the main Stems, produced toward the Bottom; and the Whorles of Flowers are produced at every Joint toward the upper Part of the Stalks. These are pretty large and hairy. The Flowers are somewhat larger than those of the common Field Basil, and are of a deeper Colour, stretching a little more out of the Empalement. The Leaves of this have at first Sight much the same Appearance; but when they are observed with Attention, the Difference is soon observed between the Two Sorts: But the greatest Difference is in the Leaves and Whorles of Flowers being placed at a greater Distance, and the Stalks growing sparsely in this Species; nor do the Plants continue so long as those of the common Sort.

This Sort flowers in *June*, commonly a Fortnight or Three Weeks before the common *Field Basil*, and the Seeds ripen in *September*, which if permitted to scatter, the Plants will come up in the Autumn; and if the Winter proves favourable, they will live in the open air, provided they grow on a dry Soil; but in moist Ground they are frequently destroyed, especially when the Plants are young.

This Plant approaches near to the *Clinopodium Orientale Origani folio, flore minimo, Tour. Corol.* 12. But by comparing this with a Specimen of that Sort from the *Paris Garden*, I find the Leaves of that are smoother, and placed much nearer together on the Stalks than those of this Sort, and the Flowers are smaller; so that it may be deemed a distinct Species, as these Differences are permanent, and do not alter in any of the Plants which arise from the Seeds.

PLATE XCVI.

CLYMENUM, *Tourn. Inst. R. H.* 396. *Tab.* 218. *Lathyrus viciæformis, seu Clymenum, Raii Meth.* 103. *Lathyrus, Lin. Gen. Plant.* 781. Chickling Vetch.

Tournefort ranges this Genus in the Second Section of his Tenth Class of Plants, intituled, *Herbs with a papilionaceous Flower, whose Pointal turns into a long unicapsular Pod.* Mr. *Ray* places it in his Twenty-first Class of Plants, which contain the Herbs with *papilionaceous or leguminous Flowers*; and this Genus in his First Order, which includes those Plants which are not trifoliate: And as the Leaves of this Plant do resemble the *Lathyrus* and *Vicia*, so he titles the Genus *Lathyrus Viciæformis.* But Doctoor *Linnæus* joins this, the *Aphaca* and *Nissolia* of *Tournefort*, to the *Lathyrus*, and places it in his Seventeenth Class of Plants, intituled, *Diadelphia Decandria*; the Flowers of this Class having Nine Stamina joined together, and a single One standing separate. In this Class of leguminous Plants, Doctor *Tournefort* has departed from his own System, in the Division of the Genera; but there was a Necessity for his so doing, because, by the Method which he proposed of ranging the Plants from the Form of the Flower and Seed-vessel only, he must have enlarged many of the Genera to so great an Extent, as to have rendered it difficult to distinguish the Species, so as not to perplex his Students: And Nature seems to have pointed out this Method of dividing them by the Form of their Leaves, which are the most obvious Characters; and therefore are easier comprehended than those smaller Distinctions of the Flower cup, *&c.*

This Genus *Tournefort* distinguishes from *Lathyrus*, by its Leaves having several Conjugations placed on a Midrib, which ends in a Tendril; whereas those of *Lathyrus* have but One Pair of Leaves growing on a leafy Border of the Stalk, which ends in a Tendril.

The other Characters of this Genus are exhibited in the *Gardener's Dictionary.*

The Species here represented is,

CLYMENUM *Hispanicum flore vario, siliquâ articulatâ, Tourn. Inst.* 396. *i. e.* Spanish Chichling Vetch, with a variegated Flower and a jointed Pod.

a, represents the Flower in Front, shewing the Standard, the Keel, and the Two Wings. *b*, the hinder Part of the Flower. *c*, the Nine Stamina joined together, and One separated from them. *d*, the Pointal, which afterwards turns to the Pod *e*; and *f*, a single Seed taken out of the Pod.

This is by Doctor *Morison* titled *Lathyrus Viciaoides floris vexillo Phænicio, foliis labialibus, subalbescentibus, siliquis Orobi, Hist. Par.* 2. 55. and by Doctor *Linnæus, Lathyrus pedunculis subunifloris, cirrhis polyphyllis, foliolis alternis, Hort. Cliff.* 368.

This Plant grows naturally in *Spain* and *Portugal*, from whence the Seeds have been sent to *England*. I have also received the Seeds from *America*; but it is not certain that it grows naturally there, or that the Seeds have been carried from *Europe*, and may have propagated there in so great Plenty, as to render it doubtful whether it was not a Native of that Country. For if the Seeds are permitted to scatter in a Garden, the Plants will come up, and maintain their Situation without any Culture.

It is an annual Plant, and may be propagated in the same manner as the *Sweet Pease*. Those Plants which come up in the Autumn, if they are not destroyed by very severe Frost in Winter, will flower in *May* and *June*, and the Seeds will ripen in *July*; but those which come up in the Spring, will not flower till a Month or Five Weeks after; so that, by sowing at both Seasons, there may be a Continuation of Flowers for Two or Three Months, which will make a Variety in the Borders of the Flower Garden.

PLATE

PLATE XCVII.

CHIRONIA, *Lin. Gen. Plant.* 227. *Centaurium minus Com. Plant. Rar.* 8. *Tab.* 8. *Old. Plant. Afr.* 26. African Lesser Centaury.

THE Characters of this Genus are,

The Empalement of the Flower is permanent, and is of One Leaf, which is cut into Five acute Segments at the Top, as is represented at a. *The Flower is of One Leaf, having a large Tube, and is spread open at the Top, where it is divided into Five equal Segments, as is represented at* b. *In the Center of the Flower is situated the oval Germen, supporting a slender Style* c, *which is declined; and is surrounded by Five Stamina* d, *each being crowned with a large contorted Summit. After the Flower is past, the Ovary becomes a swelling Capsule, filled with small Seeds.*

This Genus of Plants is by Doctor *Linnæus* ranged in the First Section of his Fifth Class, intituled, *Pentandria Monogynia.* The Flowers have Five Stamina, and One Style. There are several Species of this Genus, which have been titled *Lesser Centaury* by the several Writers who have mentioned them: Some of these have a pulpy Berry succeeding their Flowers, and others have their Seeds inclosed in a Capsule: So that, if their Fruit is admitted as a Characteristic in distinguishing the Genus, these must be separated to different Genera.

The Species here represented is,

CHIRONA *frutescens capsulifera, Lin. Spec. Plant.* 190. Shrubby Chironia, whose Seeds are contained in a swelling Pod. This is by Doctor *Commelin* titled *Centaurium minus Africanum arborescens latifolium, flore ruberrimo Rar. Pl.* 8. i. e. Shrubby African Lesser Centaury, with broad Leaves and red Flowers. Dr. *Linnæus* has joined all the common Species of the *Lesser Centaury* to the Genus of *Gentian*; so has abolished the Title of *Centaurium*: But as the several exotic Species have but One Style, and the *European* Sorts have Two, he has separated them, and constituted this Genus by the Title of *Chironia*, from *Chiron* the *Centaur*.

This Plant is a Native of *Africa*, from whence the Seeds were brought to some curious Gardens in *Holland*, where it has been many Years preserved: But as it can be only propagated by Seeds, which are but seldom perfected in the cooler Parts of *Europe*, so the Plants have not been common in the Gardens; and being somewhat difficult to preserve through the Winter, has also prevented their being made so common as might have been expected, because the Beauty of its Flowers renders it worthy of a Place in every curious Garden.

It hath a fibrous Root, which spreads near the Surface of the Ground. The Stalks are round, and inclining to be ligneous; but are of a soft Texture: These grow from Two to Three Feet high, having several Branches on every Side, which grow erect: These are garnished with succulent Leaves, which are an Inch or more in Length, and an Eighth Part of an Inch broad, ending in an obtuse Point. At the Ends of each Shoot the Flowers are produced, which are tubulous, and spread open at the Top like those of *Periwinkle.* These are of a bright red Colour; and when there are a large Number of the Flowers open on the same Plant, they make a very fine Appearance. In the Center of the Flower is placed an oval Germen, upon which there is fixed a recurved Style, having a blunt Stigma at the Top. This is surrounded by Five incurved Stamina, each supporting a large Summit. When the Flowers fall away, the Germen becomes an inflated Capsule, which is filled with small Seeds. The Flowers are produced from *June* to Autumn, and the Seeds ripen in *October.* This Plant should be placed in an airy Glass Case in Winter, where it may enjoy a dry Air, and much Sun, but will not thrive in a warm Stove; nor can it be well preserved in a common Greenhouse, because a damp moist Air will soon cause it to rot.

PLATE XCVIII.

CNEORUM, *Lin. Gen. Plant.* 47. *Chamælea Tourn. Inst. R. H.* 651. *Tab.* 421. *C. B. P.* 462. *Raii Meth. Plant.* 152. Widow-wail; in French *Camelée.*

THIS Genus of Plants is by Doctor *Linnæus* ranged in his Third Class, intituled, *Triandria Monogynia,* from the Flower having Three Stamina and One Style. Doctor *Tournefort* has placed it in the Appendix to his Institutions; but it should be ranged in his Twentieth Class of Plants, tho' by his Method it would be separated on account of the Flower having Three Petals; whereas those of that Class are monopetalous. Mr *Ray* places it in his Division of Trees and Shrubs which have moist Berries not umbilicated, each having a single Seed.

The Species here represented is,

CNEORUM, *Hort. Cliff.* 18. Widow-wail. This is the *Chamælea tricoccos* of *Caspar Bauhin* and *Dodonæus,* and the *Cneorum* of most old Writers on Botany: So that Doctor *Linnæus* has only applied the ancient Title to this Genus, instead of the modern Name of *Chamælea tricoccos.* It has also been titled *Thymelea* by some Botanists; but as that Name is now applied to the *Mezereon,* and other Plants agreeing in the same Character, which have Flowers of One Leaf, so this Plant must not be ranged with them.

a, represents the Empalement of the Flower; *b,* the Three Petals of the Flower; *c,* the Berries or Seeds, each Flower being succeeded by Three Seeds or Berries joined together.

The Characters of this Genus are exhibited in the *Gardeners Dictionary.*

This humble Shrub seldom rises more than Two Feet and a Half high in this Country, but spreads out on every Side with many lateral Branches, so as to form a thick Bush. The Stems are ligneous, and almost as hard as those of the Box-tree; and the Wood is of a pale

pale yellow Colour under the Bark. The Branches are garnished with Leaves, which are stiff, of an oval Shape, about One Inch and an Half long, and a Quarter of an Inch broad, of a dark-green Colour, having a strong Vein or Rib thro' the Middle. The Flowers are produced single from the Wings of the Leaves, toward the Extremity of the Branches, which are of a pale yellow Colour, composed of Three Petals, which spread open, and a round Germen at the Bottom, having a single Style, which doth not rise above half the Length of the Stamnia, which are Three in Number, standing erect, and are situated between the Petals. After the Flowers are fallen, the Germen becomes a Fruit, composed of Three Seeds joined together after the same manner, as those of *Tithymalus* or Spurge: These are first green, afterwards turn of a brown Colour, and when ripe are black. The Flowers begin to appear in *May*, and are succeeded by others during the Summer Months; and, when the Autumn proves favourable, these Shrubs will continue in Flower till the End of *October*.

This Plant was formerly housed up in Greenhouses, and supposed to be too impatient of Cold to endure the Winters in the open Air; but by Experience it is found hardy enough to resist the greatest Cold in *England*, provided it is planted on a dry Soil; for in wet Land their Roots will perish with little Cold; whereas many Plants, which have been growing in the open Air in the Physic-Garden at *Chelsea* upwards of 20 Years, are yet in great Vigour.

As this is a low Evergreen Shrub, so it may be very ornamental, if placed in the Front of Plantations of Evergreen Trees and Shrubs; for as the Branches grow pretty compact, and are well garnished with Leaves, so it will hide the Ground between the taller Shrubs better than most other Plants; and being a durable Shrub, will not want to be renewed: It rises better from scattered Seeds, than if sown with Care.

PLATE XCIX.

Colutea, *Tourn. Inst. R. H.* 649. *Tab.* 417. *Raii Meth. Plant.* 163. *Lin. Gen. Plant.* 776. Bladder-Sena; in French, *Baguenaudier.*

THIS Genus of Plants is by Doctor *Tournefort* ranged in the Third Section of his Twenty-second Class, intituled, *Trees and Shrubs with a papilionaceous Flower, whose Leaves are placed on each Side the Mid-rib, either alternately or by Pairs.* Mr. *Ray* places it in his Class of Shrubs with papilionaceous Flowers and pinnated Leaves. Doctor *Linnæus* ranges it in his Seventeenth Class of Plants, intituled, *Diadelphia Decandria*, the Flowers having Ten Stamnia, Nine of which are joined together, and the other stands off at some Distance.

The Species here represented is,

Colutea *Æthiopica flore phœnicio, folio Barbæ jovis, Breyn. Cent.* 1. 70. i. e. Ethiopian Bladder Sena, with a scarlet Flower, and Leaves like those of Jupiter's-beard. This is the Fourth Sort mentioned in the *Gardeners Dictionary.*

a, shews the Flower, with its Petals; *b*, the Ten Stamina; *c*, the Pointal, which afterwards becomes an inflated Pod, as represented at *d*, which contains several Kidney-shaped Seeds shewn at *e*.

The Characters of this Genus are exhibited in the *Gardeners Dictionary.*

Dr. *Linnæus* titles this Plant, *Colutea fruticosa, foliolis ovato-oblongis.* By the *English* Gardeners it is called *Scarlet Colutea.*

This Shrub is hardy enough to live abroad in the open Air in *England* when the Winters are favourable, and they are planted on a dry Soil, and in a warm Situation; But in severe Winters the Plants are generally destroyed; so that it is necessary to have a few Plants in Pots, which may be sheltered in Winter, lest those in the open Air should be destroyed. But those which live abroad make much stronger Plants, and produce a greater Number of Flowers, than those which are housed in Winter.

The Plants of this Kind are seldom of long Duration, most of them decaying the Second Winter; yet in some favourable Seasons I have seen of these Plants, in a warm Situation, Three Years old, which were upwards of Six Feet high, with very large Heads, and all the Branches covered with Flowers, which made a very fine Appearance: But the usual Height to which these Plants grow, is from Two to Four Feet; and those which are exposed to the open Air will have many lateral Branches, well garnished with Spikes of Flowers, coming out at the Wings of the Leaves; which being of a scarlet Colour, and intermixed with the silvery Leaves of the Plants, afford an agreeable Variety. The usual Time of its flowering is in *June*, and the Seeds ripen in *September*; but in favourable Seasons the Plants often produce fresh Flowers in Autumn: And many times those Plants, which are raised pretty forward in the Spring, will produce Flowers in *August*, and sometimes perfect their Seeds in *October*, when the latter Season proves mild.

Those Plants which are planted in Pots, to be sheltered in Winter, must be treated hardily, otherwise their Branches will be very weak, and produce but few Flowers: Therefore they should remain abroad in a sheltered Place until the Middle of *November*, unless the Frost should prove severe; and when they are removed into the Greenhouse, they should be placed close to the Windows, that they may have as much free Air as possible. During the Winter they should have but little Wet; and in *March* should be taken out of the Greenhouse, and placed under some Cover, where they may be protected from any hard Frost, yet have a great Share of Air to harden their Shoots before their Flower-buds are formed.

PLATE



CHIRONIA *frutescens capsulifera. Linn. Spec. plant. 190.*

R. Lancake del. — E. Miller sculp.

Publish'd according to Act of Parliament by P. Miller July 1755

Centaury

Pl. XCVIII

CNEORUM. Lin. H. Cliff. 18.

R. Lancake delin

Publish'd according to Act of Parliament [illegible]

Widow-wail



COLUTEA. *Æthiopica flore phœniceo foliis Barbæ Jovis Breyn. Cent. 1. 70.*

R. Lancake del. *[illegible] sculp.*

Publish'd according to the Act of Parliament, by P. Miller July 27 175[illegible]

Bladder Sena



COLUTEA *foliolis ovatis integerrimis caule fruticoso*

R. Lancake del. G. D. Miller sc.

Publish'd according to Act of Parliament by P. Miller July 27 1756

Shrub Bladder Senna



Fig. 1 CONVALLARIA foliis amplexicaulibus caule tereti pedunculis axillaribus multifloris [illegible]
Fig. 2 CONVALLARIA foliis cordatis Fl. Lap. [illegible]

[illegible] delin.

Publish'd according to Act of Parliament by [illegible] Miller [illegible]

Solomon's seal;



CONVOLVULUS, *Syriacus s. Scammoniaca Syriaca Mor. Hist. 2. p. 12. tab. 3.*

R. Lancake delin. J. S. Miller Sculp.

Publish'd according to Act of Parliament by P. Miller July 27. 1756.

Bindweed

PLATE C.

Colutea.

THIS is of the same Genus with the Plant represented in the former Plate. The several References there made to the Authors who have treated of the Characters of the Flower will serve this Plate also; therefore need not be repeated.

The Species here represented is,

Colutea *foliolis ovatis integerrimis, caule fruticoso.* Shrubby Bladder-Sena with oval Leaves, which are intire.

This Shrub is a Native of the East. The Seeds of it were brought to *England* some Years since by the Rev. Doctor *Pocock*, who gathered them in *Turkey*, but did not note the particular Place of its Growth: But Doctor *Russel*, who resided many Years at *Aleppo*, on his Return to *England* brought some dried Samples of this Plant, among many others which he had collected in the Neighbourhood of that City; and he assured me this Shrub was very common in that Country, and generally passed for the common *Bladder-Sena*: But whoever will compare the Two Plants together will soon see they are two very different Species: And the Difference constantly continues in all the Plants which arise from Seeds of both Sorts, as I have several Years observed: Therefore I have chosen to give a Figure of it, as it is at present undescribed; and have added a Leaf of the common *Bladder-Sena* on the Side of this, to shew how they differ in the Shape of their Leaves.

a, represents a single Flower fully blown; *b*, shews the Keel of the Flower opened, whereby the Ten Stamina, surrounding the Style at *c*, are represented; *d*, shews a Pod opened, that the Seeds at *e* may be seen how they are ranged in a single Row, adhering to a strong Membrane, which fastens both the Valves of the Pod, and through which the Nourishment is conveyed to the Seeds.

This Shrub seldom grows more than Six or Seven Feet high in this Country. The Branches are extended on every Side, and are much more pliant than those of the common *Bladder-Sena*, therefore do not grow so erect. The Leaves are also much smaller, and of an oval Shape; whereas those of the common Sort are broad, obtuse, and indented at their Extremity, and are of a glaucous or whitish-green Colour. The Flowers are little different from those of the common Sort; but they appear at least a Month earlier, and there is a Succession of Flowers continued till late in the Autumn, which renders this much more valuable than the common Sort: And as the Branches of this Sort do not shoot so luxuriantly, nor so upright, so they are in less Danger of being broken by strong Winds in the Summer; which frequently happens to the common Sort, whereby they are rendered unsightly, especially in small Gardens, where they are not protected from the Violence of Winds by other Trees and Shrubs.

This Sort is propagated by Seeds, in the same manner as the common *Bladder Sena*, and is equally hardy; but the Earwigs are great Destroyers of the Seeds: So that, in order to have Plenty of the Seeds, there should be the same Caution taken as is usual to preserve the Flowers of Carnations; which is, to hang a Number of Lobster-claws, or the Bowls of Tobacco-pipes, inverted, in several Parts of the Shrubs, into which these Insects will retire for Shelter, and may be daily destroyed: But where this Precaution is not observed, they will eat into the Pods of the *Sena*, and devour all the Seeds. This Sort of *Bladder-Sena* sends forth many Suckers from the Roots, by which it may also be propagated; but the Plants raised from Suckers are not so valuable as those which are propagated by Seeds, as they never grow so strong, and are subject to produce many Suckers from their Roots.

PLATE CI.

Convallaria, *Lin. Gen. Plant.* 383. *Polygonatum, Tourn. Inst. R H.* 78. *Tab.* 14 *C. B. P.* 303. *Raii Meth. Plant.* 73. Solomon's Seal; in French, *Seau de Solomon.*

THIS Genus of Plants is by Doctor *Linnæus* ranged in the First Section of his Sixth Class of Plants, intituled, *Hexandria Monogynia*, the Flower having Six Stamnia and One Style. To this Genus he adds the *Lilium convallium* of *Tournefort*, and the *Unifolium* of *Dillenius*. Doctor *Tournefort* places it in the Second Section of his first Class of Plants, intituled, *Herbs with a Bell-shaped Flower of One Leaf, whose Pointal becomes a soft Fruit or Berry.* Mr. *Ray* ranges it in the Third Division of his Seventeenth Class, in which are placed the berry-bearing Plants.

The Species here represented is,

Fig. 1. Convallaria *foliis amplexicaulibus, caule tereti, pedunculis axillaribus multifloris, Phil. Bot.* 218. *Lin. Spec. Plant.* 315. i. e. Solomon's-Seal with a taper Stalk, whose Leaves closely embrace it, and many Flowers on each Footstalk, proceeding from the Wings of the Leaves.

a, represents a single Flower intire, taken from the Stalk; *b*, another Flower placed upright to shew the Stamina and Pointal how far these advance. *c*, is a Flower cut open, shewing the Insertion of the Six Stamina, and the Pointal situated on the Top of the Embryo, which afterwards turns to a Berry *d*, which has a soft thin Pulp, in which is inclosed a single Seed. *e*, shews the Berry cut through.

This is the *Polygonatum latifolium maximum, C. B. P.* 303. and of *Tournefort, Inst. R. H.* 78. *i. e.* The largest Solomon's-Seal, with broad Leaves. This Sort approaches near to the *Polygonatum latifolium Hellebori albi foliis, C. B. P.* but differs from it in its being smaller, and the Leaves not so long, or so deeply veined; nor do the Flowers grow so large. This is the Fifth Sort of

of *Polygonatum* mentioned in the *Gardeners Dictionary*. It grows naturally in the Woods of *Germany*, *Italy*, and *France*; but it is equally as hardy as our common *Solomon's-Seal*, which is found in the Woods in some Parts of *England*.

FIG. 2. CONVALLARIA *foliis cordatis*, *Flor. Lap.* 113. i. e. Convallaria with heart shaped Leaves. This is the *Lilium convallium minus C. B. P.* and the *Unifolium Dod. Pempt.* 205. *Camerarius* titles it *Gramen Parnassi. Epit.* 744. and *Tournefort*, *Smilax unifolia humillima*, *Inst. R. H.* 654. i. e. Dwarf Smilax with One Leaf.

This Plant seldom grows more than Four or Five Inches high, arising with a single Footstalk from the Root, upon which there is One or Two heart-shaped Leaves, which closely embrace it. The Top of the Stalk is terminated by a loose Spike of white Flowers, which have short Tubes, and spread open at the Top, where they are divided into Four obtuse Segments: After the Flowers are past, the Embryo turns to a soft Fruit or Berry, in which is inclosed a single hard Seed. As this Plant propagates very fast by its creeping Roots, so, unless they are confined in Pots, they will soon spread over a large Piece of Ground; and where they have room to spread they seldom produce Berries: This is also the Case with many other creeping-rooted Plants, which rarely continue fruitful.

This Sort grows naturally in the Woods in *Holland* and *Germany*. I gathered it in a small Wood near *Haerlem* in *Holland*, as also near the *Hague*.

PLATE CII.

CONVOLVULUS, *Tourn. Inst. R. H.* 81. *Raii Meth Plant.* 81. *Lin. Gen. Plant.* 198. Bindweed; in French, *Liseron*.

THIS Genus of Plants is by Doctor *Tournefort* ranged in the Third Section of his first Class, intituled, *Herbs with a Bell-shaped Flower of One Leaf, whose Pointal turns to a dry Fruit, having several Cells.* Mr. *Ray* places it in his Nineteenth Class of Plants, intituled, *Herbs bearing their Seeds in Pods, having a regular Flower of One Leaf.* And Doctor *Linnæus* places it in his Fifth Class of Plants, intituled, *Pentandria Monogynia*, the Flower having Five Stamina and One Style.

The Species here represented is,

CONVOLVULUS *Syriacus, Scammoniaca Syriaca, Mor. Hist. p.* 2. 12. *S.* 1. *Tab.* 3. *i. e.* Syrian Bindweed, or Syrian Scammony.

a, represents the Root from whence the Scammony is taken; *b*, shews a Flower in Front; *c*, the Back of the Flower, with its Empalement; *d*, is a Flower cut open, to shew the Five Stamina and the Style; *e*, is a Seed-vessel which is commonly divided into Three Cells, *f*, is one of the Seeds taken out of the Vessel; *g*, is a Leaf separated from the Branch.

This is the *Convolvulus foliis sagittatis postice truncatis, pedunculis bifloris, Flor. Leyd. Prod.* 427. *Lin. Sp. Plant.* 153. and the *Scammonia Syriaca, C. B. P.* 294. *John Bauhin* titles it *Scammonia Syriaca flore majore Convolvuli, Hist.* 2. 163.; and *Lobel*, *Scammonium Syriacum Antiochenum, Icon* 620. in English, *Scammony*; in French, *Scammonée*. This is the Thirty-third *Convolvulus* mentioned in the *Gardeners Dictionary*. Altho' the native Country of this Plant is about *Aleppo*, yet it is found to be hardy enough to live in the open Air in *England*. The Stalks of this Plant are annual, and perish in Autumn; but the Root abides several Years, and will grow to a large Size. The Branches come out in the Spring, which trail on the Ground, and extend to a great Length on every Side, but have no Disposition to climb but toward their Extremity (as do most of the other Species of *Convolvulus*), the Stalks being strait, and branch out into many smaller ones. The Leaves are placed alternately on the Branches, sustained on Pedicles an Inch long: They are for the most part triangular, but vary in their Shape, some having short, others longer Ears at their Base. The Flowers are produced at the Wings of the Leaves, on Footstalks, which are Five or Six Inches in Length, each having Two Flowers; but these never open together for when the first is fully blown, the other is but a small Bud; so when the first decays, the other comes forward to flower; whereby there is a Succession of Flowers continued on the Plants for a long time. The Flowers are of a pale sulphur cream Colour, and are larger than the small wild *Convolvulus*. These are frequently succeeded by Seeds in *England*, which are inclosed in a dry Seed-vessel, which hath for the most part Three Cells, in each of which is inclosed a single Seed. The Seeds of this Plant were sent me by Mr. *Richard*, Gardener to the King of *France* at *Trianon* and *Versailles*, in the Year 1753, which were sown in the full Ground, where they grew very well, and have continued to this time, producing Plenty of Flowers every Year in *June*, *July*, and *August*, and the Seeds ripen in *September*.

The *Scammony* which is used in Medicine is taken from this Plant; which is done by wounding of the Root, and placing a Shell to each of the Incisions to receive the milky Juice, which flows out plentifully where-ever the Plant is wounded; and when this is hardened, it is exported for Use: But of late Years they have added some other things to the Juice, to augment the Quantity, whereby the Quality of the Medicine is greatly altered; so that it is not so good as a Preparation of the Juice of the common Sort of *Convolvulus* which grows naturally in most Parts of *England*.

PLATE

PLATE CIII.

CONYZA, *Raii Meth. Plant.* 33. *Boerh. Ind. Plant.* 116. *Aster. Tourn. Inst. R. H.* 481. *Tab.* 274. *Erigeron, Lin. Gen. Plant.* 855. Fleabane; in French, *Conise*.

MR. *Ray* ranges this Genus of Plants in his Seventh Clafs, which includes thofe Plants that have a radiated difcous Flower, and downy Seeds. Doctor *Linnæus* places it in his Nineteenth Clafs of Plants, intituled, *Syngenefia Polygamia Superflua*. The Flowers of this Clafs are Male, Female, and Hermaphrodite, joined and included in the fame common Empalement; and, according to Doctor *Tournefort*'s Method, this muft be ranked with the Starworts, in his Nineteenth Clafs of Plants; in which he includes the Plants that have a radiated difcous Flower, and pappofe Seeds.

The Species here reprefented is,

CONYZA *mas Theophrafti, major Diofcoridis, C. B. P.* 265. The Male Fleabane of Theophraftus, and the Greater of Diofcorides.

a, fhews an intire Head of Flowers, included in one common fcaley Empalement; *b*, one of the Florets which compofe the Difk of the Flower, which is cut open, to fhew the Five Stamina and Pointal; *c*, the Embryo fupporting the Style; *d*, one of the Half-florets which compofe the Border of the Flower; and *e* is one of the Seeds, with its Down.

This is the *Conyza major* of *Dodoneus* and *Clufius*. *John Baubin* titles it, *Conyza major Monfpelienfis odorata, Hift.* II. 1053. *i. e.* The greater fweet-fcented Fleabane of Montpelier. This is the Fourth Species in the *Gardeners Dictionary*. Doctor *Linnæus* has joined this Plant to the *Groundfel*, and titles it, *Erigeron pedunculis unifloris lateralibus, calycibus fquamofis, Hort. Upfal.* 258. *Tournefort* has not mentioned this Plant in his *Inftitutions of Botany*, altho' it is a common Plant in the South of *France*, from whence I received the Seeds; and as there is not a good Figure of the Plant in any of the Books of Botany, I have had this taken from the growing Plant in the *Chelfea* Garden.

The Root of this Plant is perennial; but the Stalk is annual, and decays in Autumn, foon after the Seeds are perfected, and new Stalks arife from the Root every Spring. Thefe grow about Three Feet high, and are garnifhed with Leaves placed alternately, which are from Four to Six or Eight Inches long, and Three broad, in the wideft Part. They are a little hairy, and foft to the Touch; but in hot Weather both Leaves and Stalks fweat out a glutinous Liquor, which is very clammy. The Flowers are fingle, and grow at the Extremity of each Branch: Thefe are of a yellow Colour, having a Border of Semi-florets, inclofing a great Number of Florets which are Hermaphrodite, and are all inclofed in a common fcaley Empalement. Thefe have a ftrong Scent. After the Flowers are paft, the Pointal of each turns to an oblong Seed, having Down adhering to it, by which the Seeds, when ripe, are wafted by the Wind to a confiderable Diftance.

This Plant grows naturally in the South of *France*, in *Spain*, and *Italy*, where it is ufed to drive away Fleas and Gnats, as fome fuppofe, by its ftrong Scent being difagreeable to thofe Infects; but I rather think they are caught by the clammy Juice of the Leaves and Stalks; fo that when any of thofe fmall Infects happen to fkip on the Plant, they are faftened thereto, and cannot difengage themfelves from it, as I have often obferved to be the Cafe of fome of the fmaller Flies and Gnats, when they have fettled upon the growing Plants in hot Weather, at which time the Leaves are very clammy.

PLATE CIV.

CORNUS, *Tourn. Inft. R. H.* 641. *Tab.* 410. *Raii Meth. Plant.* 147. *Lin. Gen. Plant.* 139. *Virga Sanguinea, Dillen. Gen. Nov.* Dogwood; in French, *Cornouiller*.

DOCTOR *Tournefort* ranges this Genus of Plants in the Ninth Section of his Twenty-firft Clafs, intituled, *Trees and Shrubs with a Rofe-flower, whofe Empalement turns to a ftony Fruit.* Mr. *Ray* places it among the Trees and Shrubs which have an umbilicated Fruit, including a fingle hard Seed: And Doctor *Linnæus* ranges it in his Fourth Clafs of Plants, intituled, *Tetrandria Monogynia*; the Flowers of this Clafs having Four Stamina, and a fingle Style.

The Species here reprefented is,

CORNUS *fylveftris, fructu albo Gmelin. Amman. Ruth. p.* 198. *i. e.* Wild Dogwood, with a white Fruit.

a, fhews a fingle Flower, which is compofed of Four Leaves; *b*, the Four Stamina, fituated between the Petals of the Flower; *c*, the Embryo in the Center of the Flower; *d*, the Berries when ripe; and *e*, the Seed taken out of the Pulp.

This Shrub was firft difcovered by *Gmelin*, who was Profeffor of Botany at *Peterfburgh*, at *Tobolio*, and afterwards by *Mefferfchmidian*, one of the Botanifts who were fent by the Emprefs of *Ruffia* to fearch after new Plants, towards the Confines of her Dominions, near *Kamfchatki*, by whom the Seeds were fent to *Peterfburgh*, under the following Title, *Cornus fæmina, feu Virga fanguinea baccis albis racematim hærentibus, fucco lactefcente plenis.*

The Fruit of this Shrub was fent to *England* by Doctor *Amman*, the late Profeffor of Botany at *Peterfburgh*, from which feveral Plants were raifed, and afterwards propagated in fome of the Nurferies near *London*; and for fome Years it was fold as an *American* Shrub, and by fome it is yet thought to be fo; though we can have no doubt of its being a Native of *Ruffia*, nor have there been either Plants or Seeds of this Kind brought from *America*. There is one Sort of *Female Dogwood* in the Gardens, which has been fent from *America*, in fome Particulars refembling this; but the

Leaves are narrower, and deeper veined, than those of our Sort here figured. The Flowers grow in smaller Umbels, the Fruit is smaller, and of a deep blue Color, when ripe; whereas those of this are white, and the Pulp is so transparent, that the Seeds are visible within it: So that the *American* Sort approaches nearer to our common *Wild Dogwood* than to this.

It hath a woody Stem, which puts out many lateral Branches near the Ground; so that unless the Plants are trained up while they are young to have Stems, they generally extend their Branches on every Side, to a great Distance, near the Ground. These Branches, during the Summer, are of a brownish Colour; but in Winter they change to a fine red, so as to be very conspicuous at a good Distance, and have a pretty Effect, when intermixed with other Shrubs, during that Season. The Flowers are produced in large Umbels at the Extremity of every Shoot, towards the End of *May*. These are white, and consist of Four Leaves, with Four white Stamina crowned with yellow Summits, and a single Style in the Center. The Empalement afterwards turns to a white pulpy Berry, inclosing one hard Seed: But unless these Shrubs are planted in a stiff Ground, they rarely produce much Fruit, except in cold wet Seasons.

PLATE CV.

CORONA IMPERIALIS, *Tourn. Inst. R. H.* 372. *Tab.* 197, 198. *Raii Meth. Plant.* 118. *Fritillaria, Lin. Gen. Plant.* 372. Crown Imperial; in French, *Couronne Imperiale*.

TOURNEFORT ranges this Genus of Plants in the Fourth Section of his Ninth Class, intituled, *Herbs with a Lilly Flower of Six Leaves, whose Pointal turns to a Fruit.* Mr. Ray places it in his Twenty-third Class of Plants, intituled, *Herbs with Grass Leaves, and Flowers of Six Leaves.* Doctor *Linnæus* ranges it in his Sixth Class of Plants, intituled, *Hexandria Monogynia*; the Flowers of this Class having Six Stamina, and One Style. In the former Editions of his *Genera Plantarum*, he titled this Plant *Petilium*, and joined the *Corona Regalis* to this Genus, making them only Two Species; but, in the last Edition, the Doctor has joined these to the Genus of *Fritillaria.*

The Species here represented is,

CORONA IMPERIALIS, *flore pulchre luteo, Inst. R. H.* 372. Crown Imperial, with a fine yellow Flower. This is the Ninth Sort mentioned in the *Gardeners Dictionary.*

a, represents an intire Flower, with the Pointal extended below the Petals, and the Stamina surrounding it, which are not stretched lower than the Border of the Flower; *b*, shews the Seed-vessel intire; *c*, the same opened, to shew the Rangement of the Seeds; and *d*, one of the Seeds taken out of the Pod.

This is the *Lilium sive Corona Imperialis, per omnia major, flore luteo, H. R. Par.* i. e. The greater Crown Imperial, with a yellow Flower. There are several Varieties of this Plant, which are preserved in the Gardens of those Persons who are Lovers of Flowers. These are enumerated in the *Gardeners Dictionary*, where there is a full Account of their Culture exhibited. So I shall only add a Remark or two, which is wanting there.

The Sort here represented is one of the most beautiful of the Genus, the Flowers being large, and of the finest Colour. When these Roots are planted in good Ground, and permitted to stand unremoved for Three or Four Years, their Stems will rise upwards of Four Feet high, and produce a great Number of Flowers; but these Stalks require to be supported; for, as their Time of flowering is in the Beginning of *April* (at which Season the Winds are often tempestuous), so the Stalks being tender, are frequently broken off by the Winds, if they are not supported by Sticks. As this is one of the earliest tall Flowers of the Spring, it makes a good Appearance in the Middle of the Borders in a Garden: But there should not be many of these Roots planted near the Habitation, lest they should prove offensive; for they have a strong Scent of a Fox; so that those Persons who cannot endure the Smell of that Animal, will be greatly displeased with these Flowers, when near.

This Plant was originally brought from *Persia* to *Constantinople*, and from thence was introduced to these Parts of *Europe*, about the Year 1570, when the *Laurel*, *Horse chesnut*, and several other Plants, which now adorn the *English* Gardens, were introduced; and tho' these are Natives of a Country much warmer than *England*, yet they are now so well inured to this Climate, as to thrive as well as in their natural Places of Growth, and are rarely injured by Frost.

As the Stalks of this Plant decay in *June*, the Roots may be taken up soon after, and may be kept out of the Ground till the End of *August*, which is very convenient for the sending of them from one Country to another; and thereby the Flowers have been spread thro' every Country in *Europe*, and lately have been introduced into many Parts of *North America*, where they thrive very well.



CONYZA, mas Theophrasti, major Dioscoridis C. B. P. 265.

Fleabane

Pl. CV.



Cornus, *Sylvestris fructu albo Aman. Ruth.*

R. Lancake delin. *[illegible] sculp.*

Publish'd according to Act of Parliament by P. Miller August 24. 1758.

Dogwood



Corona Imperialis

Crown Imperial



CORONILLA, *herbacea flore vario Inst. R. H. 650.*

Published according to Act of Parliament by P. Miller August 24th 1756.



CORONILLA, *maritima glauco folio Inst. R. H. 650.*

R. Lancake delin. J. S. Miller sculp.

Publish'd according to Act of Parliament by P. Miller August 24th 1755. —

[illegible] Colutea



CRASSULA, *altissima perfoliata* Dill. Hort. Elth. 114

R. Lancake delin. — J. Miller sculp.

Published according to Act of Parliament by P. Miller August 24 1756.

Lesser Orpine

PLATE CVI.

CORONILLA, *Tourn. Inst. R. H.* 650. *Raii Meth. Plant.* 163. *Linn. Gen. Plant.* 789. Jointed-podded Colutea.

DOCTOR *Tournefort* ranges this Genus in his Twenty-second Class of Plants, intituled, *Trees and Shrubs with papilionaceous Flowers, and conjugated Leaves, joined to a common Midrib.* Mr. *Ray* places it with his *siliquose Trees with a papilionaceous Flower, and winged Leaves.* Doctor *Linnæus* ranges it in his Seventeenth Class of Plants, intituled, *Diadelphia Decandria*; the Flowers of this Class having Ten Stamina, Nine of which are joined, and one standing at a Distance.

The other Characters are exhibited in the *Gardeners Dictionary.*

The Species here represented is,

CORONILLA *maritima, glauco folio, Inst. R. H.* 650. i. e. Maritime jointed-podded Colutea.

a, shews the Carina or Keel of the Flower; *b*, the Standard or Vexillum; *c*, the Nine Stamina joined, and One separate, with the Pointal; *d*, the Pod; *e*, a Seed taken out.

This is the *Colutea scorpioides maritima glauco folio, C. B. Pin.* 397. and the *Colutea scorpioides odorato, Prosp. Alp. Exot.* xvi. *p.* 17. Doctor *Linnæus* titles it, *Coronilla fruticosa, foliolis undenis, extimo majore, Spec. Plant.* 743. The Two Sorts mentioned by *Caspar Bauhin* and *Prosper Alpinus*, have been always esteemed as different Plants: But I have found that they are the same, and only vary according to the Soil and Situation where they grow; for in a poor dry Soil, or when by Accident any of the Plants happen to grow from the Joints of on old Wall, they will be much whiter than those which are in a better Soil; and from this Difference in Appearance, many good Botanists have been deceived: But, by changing their Place of Growth, I have found that the Plants have always altered in their Colour; so that those which were of a silvery Colour when growing on a poor dry Soil, by being planted in better Ground have altered their Appearance to the glaucous Colour; and, on the contrary, by planting those Plants which have been of that Colour into a rubbishy dry Soil, the Plants have been stinted in their Growth, and become of a silvery Colour; and all the Plants which come up from Seeds taken from either Variety, arise the same, when sown in the same Place: So that the extreme Whiteness which these Plants have, when growing in the rocky Parts of *Crete*, may deceive an able Botanist, as it did *Prosper Alpinus*, who supposed it a different Plant, and gave it the Title of *Colutea scorpioides odorata, Plant. Exot.* 17.

This is a very humble Shrub, rarely growing more than Two Feet high, when planted in a good Soil; but in a dry barren Place, not much above One Foot. The Stem is hard and woody, from whence the Branches are produced on every Side, near the Ground, so as to form a low bushy Shrub. The Leaves are pennated, and are composed of Five Pair of small Leaves, with an odd one at the Extremity. At the Joints where the Leaves are produced, there are Two ear-shaped Leaves, which closely embrace the Stalks. These are not expressed by *Alpinus* (so that if his Plant is different from this, it is in this Particular): The Flowers are produced in Clusters, standing on long slender Foot-stalks, which come out from the Joints where the Leaves have their Origin. These are of a yellow Colour, and have a strong sweet Scent, and the Plants always producing great Plenty of them, make a fine Appearance during the Month of *May*, which is their Season for flowering, and the Seeds ripen in *August* and *September*; which, if permitted to scatter, will come up the Spring following, and require very little further Care, than to remove the Plants to the Places where they are designed to remain, and to keep them clear from Weeds.

PLATE CVII.

CORONILLA, *Tourn. Inst. R. H.* Jointed-podded Colutea.

THE Characters of this Genus, which are exhibited in the *Gardeners Dictionary*, are represented in this Plate.

The Species here represented is,

CORONILLA *herbacea, flore vario, Inst. R. H.* 650. Herbaceous jointed-podded Colutea, with a variable Flower.

a, shews the Carina or Keel of the Flower; *b*, the Vexillum or Standard; *c*, the Stamina and Pointal; *d*, the Pod; and *e*, a single Seed taken out of the Pod.

This is the *Securidaca dumetorum major, flore vario, siliquis articulatis, C. B. Pin.* 349. and the *Colutea herbacea dumetorum major siliquis articulatis, flore vario, H. L.* and by *Morrison* it is titled, *Coronilla, seu polygala dumetorum major siliquis articulatis, flore vario, Hist.* ii. 119. Doctor *Linnæus* has titled it, *Coronilla herbacea leguminibus erectis teretibus torosis numerosis foliis glabris, Hort. Cliff.* 363. This is the Third Species in the *Gardeners Dictionary.*

It hath a perennial creeping Root, by which it multiplies so fast, as soon to spread over a large Tract of Ground; therefore it is an improper Plant for small Gardens; nor should it be allowed a Place in any Garden, near other Things; because it will soon spread over and destroy them: But as there are Successions of Flowers, from the Beginning of *June* to the End of *August*, on the same Plants, so a small Space may be allowed to this Plant, in some Corner of large Gardens, where better Things will not thrive; for this is so hardy as to thrive in any Soil or Situation.

This Plant was formerly proposed to the curious in Agriculture as a proper Food for Cattle; and a few Persons did make Trial of it: Some of whom found by Experience, that it might be cultivated with great Ease, and become very beneficial to the Farmer; but it was never extended very far. I suppose for the same Reason as many other valuable Things are neglected; only because they were not cultivated by their Predecessors. I remember to have seen a large Spot of Ground

Ground planted with this at *Deepden*, near *Darking* in *Surry*, at a Seat of the Honourable Mr. *Howard*; which although it had been neglected for some Years after his Death, yet was growing so rank, as to spread over and get the better of all the rank Weeds, Brambles, &c. which had been permitted to grow among the Plants: And I measured some of the Branches which I cut off, and found them upward of Five Feet long, and very tender their whole Length: So that a small Spot of Ground will afford a good Quantity of Fodder for Cattle; especially as it will grow fast enough to be cut Five or Six times a Year: And in dry Seasons, when there is a Scarcity of other Herbage, this will be found an excellent Plant to supply the Want. The Cattle I have tried with this Herbgreen, were *Horses* and *Cows*, both of which seemed to eat it greedily: And there can be no doubt of its being a better Food for any Cattle than the *Common Vetches*, which are sown for that Purpose; an, as this is an abiding Plant, so it is much preferable to any which require to be renewed every Year. The only Objection, of any force, which I have yet heard made to the Culture of this Plant, is the Difficulty of extirpating it, when it is once planted; for the Roots spread more than Couchgrass in the Ground. But as the Plant will last for ever, so it should be always planted where it may remain; and upon such Land as is too dry to produce other Herbage, this may be a very profitable Plant. I have some Roots which have been planted above Thirty Years, and are in as great Vigour as they were at first planting. This plant seldom produces much good Seed in *England*; which may be accounted for from the Roots creeping so far into the Ground; for many of the creeping rooted Plants become barren as to Seeds. But they propagate so much by the Root, as to supply the want of Seeds.

PLATE CVIII.

CRASSULA, *Dillen. Hort. Elth.* 114. *Tab.* 96. *Lin. Gen. Plant.* 352. Lesser Orpine, or Live-ever.

THIS Genus of Plants is by Doctor *Linnæus* ranged in his Fifth Class of Plants, and in the Fifth Division, intituled, *Pentandria Pentagynia*; which includes those Plants whose Flowers have Five Stamina and Five Pointals.

The Characters of this Genus are,

The Flower hath a five-leaved Empalement; the Corolla consists of Five narrow Leaves, which are joined at their Base, but are reflexed, and spread open, at the Brim: In the Bottom of the Tube are situated Five Nectaria, and there are Five Stamina situated round these, which arise from the Bottom of the Tube, and extend to the Brim: At the Bottom of the Tube are placed Five oblong-pointed Germina; after the Flower is past, these become Five Capsules, opening lengthwise, and filled with small Seeds.

The Species here represented is,

CRASSULA *altissima perfoliata, Dill. Hort. Elth.* 114. *Tab.* 96. i. e. Tallest Crassula, whose Leaves do closely embrace the Sralks.

a, shews a single Flower taken from the Bunch; *b*, the Five Stamina; *c*, the Five Germina which are in the Centre of the Flower; *d*, the Seed-vessel.

This is the First Species enumerated in the *Gardeners Dictionary*, where the Culture of it is fully exhibited. It was several Years propagated in the Gardens of *Holland* and *England*, before it produced any Flowers, and was supposed to have been an *Aloe*; and the young Plant without Flowers was figured by Doctor *Commeline*, Professor of Botany at *Amsterdam*, with the following Title, *Aloe Africana caulescens perfoliata glauca, & non spinosa, Præl. Botan.* 74. *Tab.* 23. Doctor *Linnæus* has given the following Title to this Plant; CRASSULA *foliis lanceolato-subulatis sessilibus connatis canaliculatis subtus convexis, Hort. Cliff.* 116. In the former Edition of his Genera, he has placed this Genus in the Third Division of his Fifth Class of Plants which is intituled, *Pentandria Trigynia*, i. e. Plants whose Flowers have Five Stamina and Three Pointals; but, upon further Examination, he has removed this Genus to the Fifth Division of that Class, as the Flowers have Five Germina. The Plants of this Genus have been, by some Botanic Writers, placed under the Title of *Cotyledon*; but as the Plants of that Genus have long tubulous Flowers, and those of this Genus have very short Tubes, so Doctor *Dillenius* separated them, and constituted this Genus of *Crassula*, under which he has ranged all those Plants whose Characters agree with this. But Doctor *Linnæus* has placed the Two Genera at a much greater Distance. As the Flowers of the *Crassula* have but Five Stamina, they are placed in his Fifth Class; but those of *Cotyledon*, having Ten Stamina, that Genus is ranged in his Tenth Class of Plants.

This Plant seldom flowers in *Europe*: So having One of them in flower in the *Chelsea* Garden, I had it drawn exactly; there having been no good Figure of it before exhibited in flower: For that in the *Eltham* Garden is a very indifferent one.

The Plant will grow to the Height of Ten or Twelve Feet, with a single upright Stem, if the Top is not broken or injured; and the Stem is generally garnished with Leaves from Bottom to the Top, and are placed cross-wise. When the Top of the Plant is cut off, there are generally Two Shoots produced at the injured Place, which always grow erect. The Flowers are always produced at the Top of the Plant, in large Clusters; these are of an herbaceous Colour, inclining to white, and the Stalk which supports them, bends downward. The Time of its flowering is in *June* and *July*; but it doth not perfect Seeds in *England*.

It grows naturally at the *Cape of Good Hope*; from whence it was brought to some of the curious Gardens in *Holland*, and has since been communicated to most Parts of *Europe*.

PLATE CIX.

CRATÆGUS, *Tourn. Inst. R. H.* 633. *Mespilus Lin. Gen. Plant.* 549. *Sorbus H. L. Bat.* 699. Wild Service; in French, *Alisier.*

TOURNEFORT ranges this Genus of Plants in his Twenty-first Class, which is intituled, *Trees and Shrubs with a Rose shaped Flower, whose Empalement turns to a Fruit inclosing several callous Seeds.*

Doctor *Linnæus* places it in his Twelfth Class of Plants, intituled, *Icosandria*; and he separates the *Cratægus, Sorbus*, and *Mespilus*, from each other, by their Number of Styles; the *Cratægus* having Two; the *Sorbus*, Three; and the *Mespilus*, Five, in each Flower. But this Distinction is not constant in all his Species. And, as *Tournefort* has separated the *Cratægus* and *Sorbus* from the *Mespilus*, on account of their Fruit, the Two former having Five Cells in which their Seeds are lodged, and the latter but One, so we choose to abide by this Distinction.

The Species here represented is,

CRATÆGUS *Virginiana foliis arbuti Tourn Inst. R. H.* 633. Virginia Wild Service, with an Arbutus Leaf.

a, represents the Flower expanded; *b*, the many Stamina; *c*, the Five Styles in the Center of the Flower; *d*, the Fruit intire; and *e*, the same cut transversly, to shew the Five Cells in which the Seeds are lodged.

This is by Doctor *Breynius* and *Herman* titled, *Sorbus Virginiana foliis arbuti*; and by Doctor *Linnæus, Mespilus inermis foliis lanceolatis crenatis subtus tomentosis, Hort. Cliff.* 189. *i. e.* Medlar without Spines, and spear-shaped Leaves indented on their Edges, and their Underside woolly. But these Indentures on the Edges of the Leaves are so small, as not to be discovered but by a very near View.

The Shrub is a Native of *North America*, where it grows naturally in moist Woods. It seldom rises more than Five or Six Feet high in its native Country; but, in *England*, Three or Four Feet is the greatest Height that I have seen any of them. It divides into many slender Branches, which are garnished with oblong spear-shaped Leaves placed alternately. These are of a pale Green above, and of an Ash-colour on their Under-sides, which are woolly. The Flowers come forth at the Division of the Branches, and also from the Wings of the Leaves, in small Bunches standing on long Footstalks. These consist of Five Petals, which spread open in Form of a Rose; they are of a dull white Colour, with several brown Spots on their Upper-side. In the Center of the Flower is placed the Germen, supporting Five Styles which are surrounded by a great Number of Stamina. After the Flower is past, the Germen becomes a round umbilicated Fruit, having a thin Pulp inclosing Five Cells, in which are lodged so many hard Seeds.

The Flowers of this Shrub appear in *May*, and the Fruit ripens in *October*; which should be then gathered, and the Seeds sown soon after; for if they are kept out of the Ground till Spring, they will not grow the First Year.

But, as this low Shrub sends out many Suckers from its Roots, so it is chiefly propagated by those in *England*, as it is by much the quicker Method. But the Plants which are produced from Suckers do seldom rise to have Stems; for they are generally so apt to put forth young ones by their creeping Roots, as to retard their upright Growth.

This Plant delights in a moist light Soil, and should have a shady Situation, where it will thrive and produce Plenty of Flowers and Fruit, which will make a Variety when intermixed with other humble Shrubs at the Season when it is in Flower; and also in the Autumn, when the Fruit begins to ripen.

PLATE CX.

CRINUM *Lin. Gen. Plant.* 366. *Lilium Herm. H. L.* 682. *Lilio Asphodelus. Tourn. Inst. R. H.* 344. *Dill. Hort. Elth. Com. Rom. Rar. Plant.* 15. Asphodel Lilly.

THIS Genus of Plants is by Doctor *Linnæus* ranged in the First Division of his Sixth Class, intituled, *Hexandria Monogynia*: The Flowers having Six Stamina and One Style. By Doctor *Herman*, and other Botanists, it was placed with the *Lilly*, but has been separated from that Genus by *Tournefort*, and other later Writers, who gave it the Title of *Lilio-asphodelus*, from the Root having many fleshy Knobs like those of *Asphodel*, and the Flower being like that of the *Lilly*. But as Doctor *Linnæus* has rejected these compound Names, so he has applied the Title of *Crinum* to this Genus of Plants.

The Characters are,

The Umbel of Flowers is inclosed by a Two-leafed Spatha or Sheath, which is reflexed when the Flowers appear: The Corolla of the Flower is of One Leaf, having a long cylindrical Tube, and deeply divided at the Top into six Parts, which are reflexed: In the Bottom of the Tube is situated the Germen, supporting a Style which is crowned with a small Stigma. There are Six Stamina which arise from the Bottom of the Tube, and are joined to the Base of the Petals: These are longer than the Style, and are crowned with oblong Summits, which are incumbent. After the Flower is past, the Germen turns to an irregular Bulb.

The Species here represented is,

CRINUM *foliis carinatis, Lin. Flor. Zeylan.* 127. *Spec. Plant.* 292. Asphodel Lilly, with hollow keel-shaped Leaves.

a, represents the tubulous Flower cut deeply into Six Parts; *b b*, the Stamina crowned with its Summit; *c c*, the Style; *d*, the Spatha or Involucrum, which inclofes the Flower-Buds; *e*, the Bulb fully grown, which is formed by the Germen.

This is titled, by Doctor *Herman, Zeylanicum bulbiferum & umbelliferum, H. L.* 682. *i. e.* Bulb-bearing Lilly of

of *Ceylon*, with Flowers growing in an Umbel. There is another Species of this Genus, which differs from this which is here represented, in the Stems of the Flowers, and the Leaves being of a purple Colour, and the Petals of the Flower have a purple Stripe on their Outside; but in other Respects it agrees with this.

This is a very ornamental Plant for the Stoves; for, as it grows naturally in the warmest Climates, so it will not thrive in *England*, but in the warmest Stoves. The Plants generally flower Three or Four Times every Year, so have no regular Seasons of appearing; sometimes in the Middle of Winter, at other Times in Spring, Summer, and Autumn; but as their Petals are of a tender Texture, so they do not continue in Beauty longer than Four or Five Days.

The Flower-Stem arises immediately from the Root, on the Outside of the Leaves, which is about Two Feet high; and, at the Top, there are Eight or Ten Flowers, which are placed in the Form of an Umbel, being closely joined at their Base, but spread open above. These are of a beautiful white Colour, and smell very sweet. The Stamina are stretched out to a considerable Length beyond the Petals, which do also spread open, each being crowned with a prostrate Summit, fully charged with yellow Farina. After the Flowers are past, the Germen swells and becomes an oblong Bulb; which, when put into the Ground produces a Plant of the same Kind: So that there are never any Seeds on these Plants; but they are easily propagated by these Bulbs; as also by Offsets from their Roots.

It grows naturally in the *Island of Ceylon*, and in several Parts of the *Spanish West-Indies*. I received the Roots of both Sorts from *Panama*; and have since been supplied with more from *Carthagena*, which have multiplied greatly in the *Chelsea* Garden.

PLATE CXI.

CROCUS, *Tourn. Inst. R. H.* 350. *Tab.* 183, 184. *Raii Meth. Plant.* 116. *Lin. Gen. Plant.* 53. Saffron; in French, *Saffran.*

THIS Genus of Plants is by Doctor *Tournefort* ranged in the Second Section of his Ninth Class, intituled, *Herbs with a Lilly Flower of One Leaf cut into Six Parts, whose Empalement turns to a Fruit.* Mr. *Ray* places it in his Twenty-third Class, which he titles, *Herbs with Grass Leaves which bear Flowers, and have tricapsular Seed-vessels.* Doctor *Linnæus* has separated this and some other Genera from the rest of the Class, where they properly belong, and, by all the former Writers on Botany, have been placed; because their Flowers have but Three Stamina: Whereas the other Genera of the same Class have Six in each Flower. But this is not a natural Division of the Plants, since in all the other essential Characters they agree. The Characters of this Genus are exibited in the *Gardeners Dictionary.*

The Species here represented is,

CROCUS *sativus, C. B. P.* Manured Saffron.

a a, shews the Three Filaments in the Flower, which are the Parts gathered, prepared, and are sold under the Denomination of *Saffron*; *b*, is the Style which rests on the Germen. This is by Doctor *Morison* titled, *Crocus autumnalis sativus, Hist.* 2. *p.* 335. *i. e.* Autumnal manured Saffron. Doctor *Linnæus* has supposed, that the other Sorts of autumnal *Crocus*, and also those of Spring, are only Varieties of this. But whoever will be at the Trouble of comparing them, will find they are essentially different. The other Species of autumnal *Crocus* have all of them the male Parts very perfect; whereas they are wanting in this; for the Three Filaments occupy their Place. Indeed there are not any of these autumnal *Crocus's* which perfect their Seeds in *England*; so we have not had an Opportunity to observe if they alter when propagated that Way. But, however near these may approach to the true *Saffron*, the Spring flowering *Crocus* must be allowed to be a distinct Species from these, not only from their Times of flowering, but also as they are specifically different in their Roots, Leaves, and Flowers. Nor do the Seeds of any of the Spring *Crocus's* ever produce Plants which flower at any other Season; so that the only Variation of these Plants which arise from Seeds, is in the different Colours of their Flowers; and, therefore we may safely pronounce the true *Saffron* to be a distinct Species from the others.

Where this Plant is a Native we cannot learn; for it is cultivated in most Parts of *Europe*. Nor is there any Mention of its growing naturally any where, by any Writers on Botany; or of its producing Seeds in either of the Countries where it is cultivated, though it may be supposed that in its native Country it may. But it is always propagated by the Root in *Europe*.

When the Roots of this Plant are put into a deep rich Earth, they are very subject to run downward, and produce taper Roots, which are by the Cultivators of *Saffron* called *Spickets*, which, if planted again, become barren of Flowers. Therefore the Land, which is the most proper for this Plant, is such as hath a light Surface, not very deep, lying upon a Bed of *Chalk*; which is the Nature of the Soil about *Saffron Walden*, and in *Cambridgeshire*, where there is more of it cultivated, than in any other Part of *England*. The Method of cultivating, gathering, and manufacturing of this Commodity is fully inserted in the *Gardeners Dictionary*, with an Account of the Profit arising from it.

The Time of its flowering is about *Michaelmas*, and sometimes a little later, according to the Season; for, until there has fallen some autumnal Rains, the Flowers do not appear in Plenty. And the Plenty of *Saffron* depends on the Autumn proving mild and favourable; for when there happen sharp Frosts at the Time of its flowering, the Crop will be but small and poor.

PLATE

Pl. CIX.



CRATÆGUS, *Virginiana foliis Arbuti. Tourn 633.*

Publish'd according to Act of Parliament by P. Miller Sept. 28.1756 —— J. S. Miller Sculp.



CRINUM, *foliis Carinatis. Flor. Zeyl. 127.*

Publish'd according to Act of Parliament by P. Miller Sept. 28. 1756.

Asphodel Lily



Crocus *sativus* C.B.P.

R. Lancake del.

Published according to Act of Parliament by P. Miller [illegible]

Saffron



Cucubalus. Plinii Lugd.

R. Lancake delin. | J. Miller sculpt.

Publish'd according to Act of Parliament by P. Miller Sept. 28. 1756.

Berry-Bearing chickweed



Cunonia, *floribus sessilibus spathis maximis Buttn*

the Scarlet Cunonia

Pl. CXIIII



Fig. 1. CYANUS, *montanus latifolius vel Verbasculum Cyanoides C. B. P. 273.*
Fig. 2. CYANUS, *angustiore folio & longiore Belgicus H. R. Par.*

R. Lancake del. — Published according to the Act by P. Miller Septr. 28 — T. Jefferys sculp.

Blue bottle

PLATE CXII.

CUCUBALUS, *Tourn. Inst. R. H.* 339. *Tab.* 176. *Raii Meth. Plant.* 74. *Lin. Gen. Plant.* 502. Berry-bearing Chickweed.

THIS is by *Tournefort* ranged in his Eighth Clafs of Plants, intituled, *Herbs and Underfhrubs, with a Flower of many Leaves fhaped like the Gilliflower, whofe Pointal becomes the Fruit.* Mr. *Ray* places it in his Seventeenth Clafs of Plants, which contain the *Berry-bearing Herbs.* Doctor *Linnæus* puts it in his Tenth Clafs of Plants, intituled, *Decandria trigynia*, from the Flowers having Ten Stamina and Three Styles. And he has added feveral of thofe Species of *Lychnis* to this Genus, which have inflated Empalements. But as this Plant hath its Seeds inclofed in a pulpy Berry, and the *Lychnis* has a dry Seed-Veffel, fo they fhould not be joined together, if we do allow the Fructification to be confidered a diftinguifhing Character of the Genus.

The Plant here reprefented is,

CUCUBALUS *Plinii Ludg.* 1429. The Cucubalus of *Pliny*, according to the *Hiftoria Lugdunenfis.*

a, reprefents the Flower with its fwelling Empalement; *b*, the Stamina; *c*, an intire Fruit; *d*, the fame opened longitudinally, to fhew the Arrangement of the Seeds; *e*, a fingle Seed taken out of the Berry.

The Characters of this Plant are exhibited in the *Gardeners Dictionary.*

This Plant is by *Cafpar Bauhin* titled, *Alfine fcandens baccifera, Pin.* 250. *i. e.* Climbing Berry-bearing Chickweed. By *John Bauhin* it is called *Cucubalum quibufdam, vel Alfine baccifera, Hift.* 2. 175. *Dodonæus* calls it, *Alfine repens, p.* 403. Creeping Chickweed. And *Linnæus* titles it, *Cucubalus calycibus campanulatis petalis diftantibus fructu colorato, ramis divaricatis, Sp. Plant.* 414. *i. e.* Cucubalus with a Bell-fhaped Empalement, the Petals ftanding at Diftances, a coloured Fruit, and divaricated Branches.

This Plant will grow to the Height of Eight or Ten Feet, where it hath a Hedge or Bufhes to climb on, otherwife the Branches trail upon the Ground if they are not fupported. Thefe are herbaceous, and die to the Root every Year. The Leaves grow oppofite at every Joint, which refemble thofe of *Chickweed*, both in Shape and Colour, but are larger, and foft to the Touch. The Flowers are produced at the Wings of the Leaves, ftanding fingle upon flender Footftalks: Thefe have a fwoln Empalement, fomewhat like the *Winter Cherry.* They are compofed of Five Petals of a pale whitifh Colour, and are fplit at their Extremities. Between thefe ftand the Stamina with their Summits furrounding the Germen, which, when the Flower is paft, turns to an oval Berry almoft as large as a fmall Black Cherry. As the Fruit enlarges, fo the Empalement becomes more reflexed; and, when it is at the full Size, appears open, the Empalement being turned back to the Pedicle. The Fruit is very black when ripe, and is as foft as the Berries of Nightfhade, and are as full of Pulp, which furrounds the Seeds. The Root is perennial, and will fpread far in the Ground, where it is allowed Room. Mr. *Ray* obferved this Plant growing naturally in the Hedges about *Frankfort*; as alfo in *Italy* and the *South of France.* And *Clufius* found it in great Plenty about *Salamanca.* It is preferved in fome *Englifh* Gardens: But the Berries are by fome Perfons affirmed to have no lefs deadly Quality than the *Sleepy Nightfhade*: So the Plants fhould not be permitted to grow in Places where Children frequent.

PLATE CXIII.

CUNONIA, *Buttn. Cun. Tab.* 1. *Antholyza, Lin. Gen. Plant.* 56. *Gladiolus Cornut. Canad.* 78. The Scarlet Cunonia.

THIS Genus of Plants is by Doctor *Linnæus* ranged in his Third Clafs, which is intituled, *Triandria monogynia*, the Flowers having Three Stamina and One Style. But according to *Tournefort*'s Method of ranging the Plants, it muft be put under his Ninth Clafs; for as he diftinguifhes them by their Form and Number of Petals, fo all thofe Plants which have been ufually termed Liliaceous, are brought together; whereas Doctor *Linnæus*, who diftinguifhes the Claffes of Plants by the Number of their Stamina, has feparated feveral Genera from their ufual Clafs, to a confiderable Diftance, becaufe they have but Three Stamina; whereas the other Genera of this old Clafs of Plants have generally Six Stamina.

The Species here delineated is,

CUNONIA *floribus feffilibus, fpathis maximus, Buttn. Cun. Tab.* 1. *i. e.* Cunonia with Flowers growing clofe to the Stalk, and large Spathæ or Sheaths.

The Characters are,

The Flowers grow alternate, each being included in a large Spatha or Sheath which is permanent; they confift of One Leaf, which is divided into Four Parts; the upper Segment being ftretched out to a much greater Length than the others, and as erect, having the Appearance of the Creft in the labiated Flowers. The Two Side Segments are fhort, and adhere clofely to the Inferior or Lip, which is flightly divided at the Extremity. In the Center of the Flower is fituated the Germen, fupporting a flender Style, crowned with a blunt Stigma; this is attended by Three Stamina which ftand erect, and are ftretched out beyond the Style. The Germen afterward turns to an oblong *Seed-veffel, having Three Partitions or Cells, in which are lodged many broad flat bordered Seeds lying over each other as Tiles on an Houfe.*

a, reprefents the Two Wings of the Flower; *b*, the Standard; *c*, the Three Stamina; *d*, the Style; *e*, the Seed-veffel; *f*, a fingle Seed; *g*, the Bulb or Root of the Plant; *h*, the Spatha or Sheath which inclofes the Flower-Bud.

Doctor

Doctor *Linnæus* has joined this Plant to his Genus of *Antholyza*; but, as the Shape of this Flower is very different from those of that Genus, the under Segment being very short, and the Three Stamina being erect, One of which in the *Antholyza* being decumbent, and the Seeds of that being triangular, whereas those of the *Cunonia* are flat and winged, so we choose to abide by the Distinction of Doctor *Buttner*, who established this Genus by the Title of *Cunonia*, in Honour to Mr. *Cunon*, a great Collector of rare Plants, who lives at *Amsterdam*.

The Root is bulbous, shaped very like that of Crocus. The Leaves are long and narrow, of a pale Green, with a Furrow through the Middle. The Stalk is round, arising immediately from the Root, and grows near Two Feet high, which is garnished toward the Top with several Flowers of a bright scarlet Colour placed alternately, and ranged on one Side of the Stalks, standing erect; each of these is included in a thin Sheath, which divides when the Flowers are blowing. These Flowers are monopetaolus, but are cut into Four Segments; the upper being very long, stands erect, and covers the Three Stamina and Style like an Hood. The Two Side Segments are short and obtuse, these have some Resemblance to the Wings of the papilionaceous Flowers, and closely embrace the lower Part of the Stamina. The under Segment is very short, closely adhering to the Spatha. The Three Stamina and Style rest upon the Germen, and are stretched out near the Length of the upper Segment or Standard. When the Flower falls away the Germen swells to an oblong Seed-vessel, which is divided into Three Cells, which are filled with compressed Seeds having Borders or Wings. It flowers in *May*, and the Seeds ripen in *July*. This Plant must be ranged between the *Gladiolus* and *Antholyza*. It is a Native of the *Cape of Good Hope*, from whence I have received the Seeds. There is a Plant of this Genus figured by *Cornutus* in his *History of Canada Plants*; but the Leaves of his are much shorter, the Two Wings of the Flower longer, and the Spatha much smaller, than in the Plant here represented; so it must certainly be distinct from ours. He titles his, *Gladiolus Æthiopicus flore coccineo*, *p.* 78. *i. e.* Corn-flag of *Ethiopia* with a scarlet Flower.

PLATE CXIV.

CYANUS, *Tourn. Inst. R. H.* 445. *Tab.* 254. *Raii Meth. Plant.* 47. *Centaurea Lin. Gen. Plant.* 880. Blue Bottle; in French, *Bluet*.

THIS Genus of Plants is by *Tournefort* ranged in his Nineteenth Class, which is intituled, *Herbs and Under-Shrubs with flosculous Flowers*. Mr. *Ray* places it in his Ninth Class of Plants, which he titles, *Herbs with compound Flowers collected into Heads*. Doctor *Linnæus* ranges it in his Nineteenth Class, intituled, *Syngenesia polygamia*, from their being Female and Hermaphrodite Flowers in the same Head. To this Genus he joins the *Jacea Centaurium majus* and *Calcitrapa*: But by so doing, he multiplies the Species, so as to render it difficult to distinguish them.

The Species here represented are,

Fig. 1. CYANUS *montanus latifolius vel Verbasculum Cyanoides*, *C. B. P.* 273. *i. e.* Broad-leafed mountain Bluebottle. This is by some called *Batchelor's Button*.

a, represents One of the Female Flowers; these compose the Border; *b*, the Hermaphrodite Flowers, which are tubulous, and form the Disk; *c*, the scaley Empalement: *d*, One of the Female Flowers taken from the Head; *e*, is One of the Hermaprodite Flowers from the Disk; and *f*, is the Head or Disk divested of the Female Flowers which form the Border.

Fig. 2. CYANUS *angustiorie folio & longiore Belgicus*, *Hort. R. Par.* Narrow long-leafed *Belgick* Bluebottle.

These Two Species are by Doctor *Linnæus* supposed to be the same; therefore he does not mention the latter in his Species of Plants. To the First, he gives the following Title, *Centaurea calycibus serratis, foliis lanceolatis decurrentibus caule simplicissimo, Hort. Cliff.* 422. i. e. Greater Centaury with sawed Empalements, spear-shaped running Leaves, and a simple Stalk. The Characters of this Genus are exhibited in the *Gardeners Dictionary*.

The First of these Plants is an old Inhabitant of the *English* Gardens, and was formerly used in Medicine, but of late Years has been seldom prescribed. The Roots of this Plant do creep much in the Ground, and put forth many Offsets, so that, if they are not retrenched, they will soon spread over a large Tract of Ground. But, as it propagates so fast by its Roots, it seldom produces Seeds in *England*.

The Second Sort I brought from the *Leyden* Garden, in the Year 1727. Before which Time it was not in any of our Gardens; but, by its being so easily propagated, it is now become very common here. Both these Sorts begin to flower in *May*; and frequently continue to produce new Flowers for Three Months, especially in moist cool Seasons. Whether the Second Sort was originally obtained from the Seeds of the First is not easy to determine, but they constantly preserve their Difference in the Gardens, never varying from each other. The Leaves of the First are whiter than those of the Second, and are covered with a soft Down.

PLATE CXV.

CYCLAMEN, *Tourn. Inst. R. H.* 154. *Tab.* 68. *Raii Meth. Plant.* 121. *Lin. Gen. Plant.* 184. Sow-bread; *in French, Pain de Pourceau.*

TOURNEFORT ranges this Genus in the Seventh Section of his Second Class of Plants, intituled, *Herbs with a wheel-shaped Flower of One Leaf, whose Pointal afterward becomes a soft Fruit.* Mr. *Ray* ranges it in the Second Division of his Twenty-third Class of Plants, intituled, *Bulbosis affines*, or Plants nearly allied to those called Bulbous. Doctor *Linnæus* ranges it in his Fifth Class of Plants, intituled, *Pentandria Monogynia*, from their Flowers having Five Stamina and One Germen.

The Characters of this Genus are exhibited in the *Gardeners Dictionary.*

The Species here represented is,

CYCLAMEN *hyeme & vere florens, folio angulofo, amplo flore, albo basi purpurea, Persicum dictum, R. H. Par.* Persian Winter and Spring-flowering Sow-bread, with a large angular Leaf, and a white Flower having a purple Bottom.

a, shews the Petals of the Flower, which are reflexed; *b*, the Pointal and Stamina; *c*, the Seed-vessel, with the Footstalk of the Flower twisted round it; *d*, the Seeds taken out of the Capsule.

Doctor *Linnæus* supposes all the Species of *Cyclamen*, which are mentioned by the Writers on Botany, to be the same; in which he is as much mistaken as those who have supposed a much greater Number of distinct Species than are at present known: So that the Difficulty is to settle which of them are specifically different; which is only to be known by frequently propagating them by Seeds, and observing what Differences will arise by Culture. This I shall attempt to ascertain from many Years Experience and Observation.

The Seeds of the *Cyclamen Hederæ folio C. B. P.* which is the most common in *England*, and thrives in the open Air very well, produces only Two Varieties, which are the purple and white Flowers: But there is not the least Variation in the Leaves, Roots, or Make of their Flowers; so that these are only accidental Varieties, and not distinct Species.

The Seeds of the *Cyclamen hyemale orbiculatis foliis inferne rubentibus, purpurascente flore, Coum Herbariorum H. R. Par.* or *Winter flowering Sow-bread with purple Flowers*, never produces any Varieties; but the same Sort constantly arises from its Seeds; and therefore may with great Truth be deemed a distinct Species from the others.

The Seeds of the Sort here figured will produce Two Varieties, one with a white Flower and purple Bottom, the other with a pale Flower and a deeper coloured Bottom; and sometimes there will arise some Plants with rounder Leaves than others.

There is another Sort, which flowers in the Spring, different from either of these, *viz. Cyclamen verno tempori florens, Clus. Hist.* 265. i. e. *The Spring-flowering Sow-bread.* This is less common in *England* than any of the other, and is undoubtedly a distinct Species, the Seeds always producing the same.

The *Cyclamen radice Anemones, flore purpureo minore odorato, Boerh. Ind. alt.* is so very different from all the others in the Form of the Root, and the Size of the Leaves and Flowers, that no Person, who is acquainted with it, can suppose it to be the same Species with any other: But as this rarely produces Seeds in *England*, so I cannot from Experience say how it may vary when raised by Seeds.

The common Sort, with purple and white Flowers, is so hardy as to endure the severest Cold in this Country in the open Air. The next hardy Sort to this is the *Winter flowering Sow-bread with purple Flowers*, which, with a little Shelter in frosty Weather, may be preserved in warm Borders: But all the other Sorts are too tender to live thro' the Winter in the full Ground in *England*, unless they are well secured from Frosts in Winter.

The common *Sow-bread* grows naturally in *Austria, Hungary* and *Istria*: The other Sorts grow naturally in *Turky, Persia*, and *Armenia.*

PLATE CXVI.

CYDONIA, *Tourn. Inst. R. H.* 632. *Tab.* 405. *Raii Meth.* 143. *Pyrus Lin. Gen.* 550. The Quince; *in* French, *Coignier.*

TOURNEFORT ranges this Genus in the Eighth Section of his Twenty-first Class of Plants, intituled, *Trees and Shrubs with a rose-shaped Flower, whose Empalement becomes a Fruit with hard Seeds.* Mr. *Ray* places it among the Apple-bearing Trees with an umbilicated Fruit. And Dr. *Linnæus* has joined this Genus to the Pear, making them only different Species of the same Genus; and ranges it in the Fifth Division of his Twelfth Class of Plants, intituled *Icosandria pentagynia*, from the Flower having more than Nineteen Stamina, and Five Styles.

The Characters of this Genus are exhibited in the *Gardeners Dictionary.*

The Species here represented is,

CYDONIA *fructu oblongo læviori, Tourn. Inst. R. H.* 632. The Pear-shaped Quince. This is the *Mala Cotonea majora C. B. P.* 434. and the *Cydonia majora Raii Hist.* 1453. in *French, Coignier femelle.* Dr. *Linnæus* titles it, *Pyrus foliis intergerrimis Hort. Cliff.* 160. *i. e.* Pear-tree with intire Leaves.

a, represents the Petals of the Flower when fully expanded; *b*, the many Stamina which are situated round the Five Styles; *c*, the Fruit intire; *d*, the Fruit cut thro' the Middle, to shew how the Seeds are lodged in their Cells in the Center of the Fruit.

As the Quince is covered with a cottony Down, so it may be separated from the Pear, whose Fruit is not so; but the other Characters are the same: And as they will

will take upon each other by being budded or grafted, that is a Confirmation of their new Alliance.

We have Three Sorts of Quinces which are cultivated in the *English* Gardens; but the Sort here represented is esteemed the best for Kitchen Use, and may also be used in Medicine; tho' that which is called the Apple-Quince is the Sort directed in Dispensaries, for all the Purposes where Quinces are ordered. The Fruit and Seeds are the Parts used.

Whether these are distinct Species, or accidental Varieties which have been produced from Seeds, is hard to determine; because they are propagated only by Suckers, Layers, and Cuttings, and are rarely raised from Seeds, though this is the only Way to know if they will prove the same as the Parent Tree, but is too tedious a Method of propagating them; for I have Plants now growing, of Fifteen Years of Age, which I raised from Seeds; but they have not as yet produced any Fruit; so that whether any Variety of the Fruit can be obtained by this Method is uncertain.

These Trees thrive best in moist Ground, so are generally planted by the Sides of Ponds or Ditches, where they hang over the Water, and in such Situations their crooked Stems, and straggling Branches, are not so much noticed as they would be in an open Spot of Ground, where they might be seen on every Side.

The several Sorts will take by grafting or budding on each other; so that, where the Fruit is not of the desired Kind, the Trees may soon be altered, by putting several Grafts or Buds in different Parts of the Trees, and, as these grow, cut away all the Branches of the former Kind.

PLATE CXVII.

Cytisus, *Tourn. Inst. R. H.* 647. *Tab.* 416. *Raii Meth. Plant.* 163. *Lin. Gen. Plant.* 785. Tree-Trefoil; *in* French, *Citise.*

THIS Genus of Plants is by Doctor *Tournefort* ranged in the Second Section of his Twenty-second Class, intituled, *Trees and Shrubs with a leguminous Flower, and Three Leaves upon each Footstalk.* Mr. *Ray* places it among the Trees with a Butterfly Flower, bearing Pods, which have Three Leaves. Dr. *Linnæus* ranges it in his Seventeenth Class of Plants, intituled, *Diadelphia Decandria,* from the Flowers having Ten Stamina, Nine of which coalesce, and One stands off at a small Distance.

The Characters of this Genus are exhibited in the *Gardeners Dictionary.*

The Species here represented are,

Fig. 1. Cytisus *racemis simplicibus erectis foliolis ovato-oblongis, Hort. Cliff.* 354. Tree-Trefoil with single upright Spikes of Flowers, and oblong-oval Leaves.

a, represents the Standard of the Flower; *b,* the Carina, or Keel; *c,* the Two Wings, or Alæ; *d,* the Stamina, with the Style; *e,* the Style separated from the Stamina; *f,* the Three Leaves of the Plant; *g,* the under Part of the Flower; *h,* the Empalement.

This is the *Cytisus glaber nigricans C. B. P.* 330. and the Fourth *Cytisus* of *Clusius.*

Fig. 2. Cytisus *floribus capitatis, foliolis ovato-oblongis, caule fruticoso.* Tree-Trefoil with Flowers growing in an Head, oblong oval Leaves, and a woody Stalk

The First Sort grows naturally in *Austria, Bohemia,* and *Hungary,* and, for the Beauty of its Flowers, has been long cultivate in the Gardens abroad; but was little known in *England* till of late Years; since I procured Seeds of it, which succeeded in the *Chelsea* Garden; from whence it has been distributed to several curious Persons.

This is a low Shrub, which naturally sends out many lateral Branches on every Side near the Ground, forming a bushy Shrub, and is with Difficulty trained to a Stem. The Branches are slender, but grow erect: These are garnished with oblong-oval Leaves growing Three on each Footstalk, like *Trefoil,* which are smooth, and of a dark-green Colour. The Flowers are produced in long Spikes, like those of *Laburnum,* but stand erect, and are of a yellow Colour. As these Spikes are produced at the Extremity of every Shoot, so, when the Shrubs are full in Flower, they make a fine Appearance. This flowers in *July,* when most other Shrubs are past, which renders it more valuable.

The Second Sort grows naturally in *Tartary,* from whence the Seeds were sent to the Imperial Garden at *Petersburgh,* and by the late Doctor *Amman,* who was Professor of Botany in that University, the Seeds were sent to *England,* and the Plants have been raised in several curious Gardens.

This Shrub rises to the Height of Four Feet, and divides into many Branches, which are garnished with oblong-oval Leaves of a whitish-green Colour: These are produced by Threes and Fives on each Footstalk. At the Extremity of the Branches the Flowers are produced, in close Clusters or Heads, and are of the Peabloom Kind, of a yellow Colour, inclining toward black at the Bottom. Each Flower hath a large Empalement, which is permanent, and incloses the lower Part of the Pod, which succeeds the Flower. The Pod is short and hairy, inclosing Three or Four Kidney-shaped Seeds.

It is very hardy in respect to Cold; but thrives best in a light Soil, which is not too dry; and loves an open Exposure, so will not thrive under the Shade of Trees.

CYCLAMEN, *hyeme & vere florens folio angulose amplo. flore albo basi purpurea. Persicum dictum. H. R. Par*

Sow-bread



CYDONIA, fructu oblongo laevi Tourn. Inst. 632.

R. Lancake delin. J. S. Miller Sculp.

Publish'd according to Act of Parliament by P. Miller October 24 1756.

The Quince

Pl. CXVI.



Fig. 1 CYTISUS, *racemis simplicibus erectis foliolis ovato oblongis.* Hort. Cliff. 354.

Fig. 2 CYTISUS, *floribus capitatis foliolis ovato oblongis caule fruticoso.*

tree Trefoil



DAYENA, *inermis foliis oblongo cordatis marginibus dentatis floribus axillaribus*

R. L. del. et sculp.

Published according to Act of Parliament by P. Miller Oct. 2. 1758

Hermaphrodite.



Delphinium, *nectariis diphyllis labellis integris, floribus Spicatis foliis palmatis multifidis Glabris.*

R. Lemaire delin. J. S. Miller Sculp

Publish'd according to Act of Parliament by J. Miller October 26 1756

Larkspur Great Bee



DIGITALIS, *calycinis foliolis lanceolatis, corollis bilabiatis acutis caule fruticoso Lin. Sp. pl. 622.*

R. Lancake delin. — J. S. Miller Sculp.

Published according to Act of Parliament by P. Miller October 2 1756.

Foxglove

PLATE CXVIII.

D'AYENA, *Monier.*

THIS Plant is so titled in Honour to Monseigneur *le Duc D' Ayen*, who is a great Promoter of the Science of Botany, and has a noble Garden at *St. Germain* in *France*, which is amply furnished with Plants from many Parts of the World; and has appointed Doctor *Monier*, of the Royal Academy of Sciences, Superintendant of it.

The Characters of this Genus, are,

It hath Male and Hermaphrodite Flowers on the same Plant, which arise from the same Wings of the Leaves. The Male Flower a, *hath an Empalement of One Leaf, which is cut into Five acute Segments, in the Center of which are situated Five Stamina, crowned with blunt Stigma. The Hermaphrodite Flowers* b, *have also an Empalement of One Leaf, which is cut into Five Segments almost to the Bottom, as is represented at* c: *The Flower is of One Leaf, tubulous at the Boottom, rising to some Height above the Empalement, as at* d, *but spread open above, and divided into Five Segments, in the Center of which is placed a round five cornered Germen supporting a single Style: The Germen afterward becomes a round Capsule, as at* e, *having Five Furrows; and is divided into Five Cells, as at* f, *which separate into distinct Parts when ripe, as at* g, *in each of which is lodged an oval Seed, as at* h.

We know but One Species of this Genus at present, *viz.*

D'AYENA *inermis, foliis oblonga-cordatis marginibus dentatis, floribus axillaribus.* Smooth D'Ayena, with oblong heart-shaped Leaves, indented on their Edges, and Flowers produced from the Wings of the Leaves.

The Seeds of this Plant were sent from *Peru* to *Paris*, by the younger *Jussieu*, in the Year 1750, where they succeeded; and, when the Plants produced Flowers, the Title of *D' Ayena* was applied to it by Doctor *Monier*, of the Royal Academy of Sciences, who sent me the Seeds.

This is a low shrubby Plant, seldom rising above a Foot high, having woody Stalks, which divide into several Branches: These are garnished at Distances with oblong heart-shaped Leaves, having pretty long Footstalks, and are indented on their Edges. At the Bottom of the Footstalks of the Leaves the Flowers come out, generally Two at each Joint, one of which is Male, and the other Hermaphrodite: The Male is generally above the other, and is of short Duration, seldom continuing much more than One Day before it fades. The Hermaphrodite Flowers are composed of an Empalement, and a tubulous Flower of One Leaf arising out of it, which is extended the Length of the Tube beyond the Empalement, and is then spread open at the Top, where it is divided into Five Segments, upon each of which is situated a slender Stamina, crowned with a blunt Summit, in the Center of which is placed the roundish Germen, supporting a short Style crowned with a round Stigma. The Flowers are of a purple Colour. After these are past, the Germen turns to a roundish prickly Capsule, having Five deep Furrows, and is divided into Five Cells, which contain oval Seeds.

This Plant is propagated by Seeds, which must be sown in an Hot-bed early in the Spring; and, when the Plants are One Inch high, they should be transplanted to a fresh Hot-bed, observing to shade them till they have taken fresh Root; after which they should have free Air admitted to them every Day in warm Weather, and gently watered from time to time, as they may require. When the Plants have acquired Strength, they must be carefully transplanted, each into a small Pot filled with light Earth, and plunged into another Hot-bed, where they may remain to flower and seed; for they are too tender to thrive in the open Air in *England*, so should be constantly kept under Glasses, in a moderate Warmth, giving them a large Share of Air in warm Weather. With this Management they will flower in *July* and *August*, and the Seeds will ripen in *September* and *October*.

These Plants may be preserved thro' the Winter, if they are placed in a moderate Degree of Heat: But as they produce Plenty of Seeds, it is not worth Trial to preserve the Plants, because the young ones are always more productive of Flowers and Seeds.

PLATE CXIX.

DELPHINIUM, *Tourn. Inst. R. H.* 426. *Tab.* 241. *Raii Meth. Plant.* 79. *Lin. Gen. Plant.* 602. Larkspur; *in* French, *Pié d'Alouette.*

THIS Genus of Plants is by *Tournefort* ranged in the Second Section of his Eleventh Class, which includes the *Herbs with an anomalous Flower, whose Pointal changes to a many-celled Capsule.*

Mr. *Ray* places it in his Eighteenth Class, under which he ranges those Plants that have regular Flowers, which are succeeded by many small Pods.

Doctor *Linnæus* ranges it in the Third Division of his Thirteenth Class of Plants, intituled, *Polyandria trigynia*, from their Flowers having many Stamina, and Three Germina.

The Characters of this Genus are exhibited in the *Gardeners Dictionary.*

The Plant here represented is,

DELPHINIUM *nectariis diphyllis, labellis integris floribus, spicatis foliis palmatis multifidis glabris.* Great Bee Larkspur.

This is the *Delphinium elatius subincanum perenne, floribus amplis azureis, Amman. Ruth.* 175. Tall perennial Larkspur with large azure Flowers.

a, re-

a, represents a Flower taken from the Spike; *b*, the Three Germina; *c*, the several Stamina; *d*, the three-cornered Capsule; *e*, a single Pod separated; *f*, the Capsule cut thro' transversely; *g*, the Seeds taken out of the Vessel.

This Plant hath a perennial Root, and an annual Stalk, which decays in Winter. The Stalks of this Plant grow to the Height of Six or Seven Feet, and are garnished with Leaves, which are broad, and divided into Five or Seven Parts, which are cut into many narrow Segments toward the Top. These Leaves come out alternately at the Joints of the Stalks, on long Footstalks, which turn back toward the Ground. The Flowers are produced in long Spikes at the Extremity of every Stalk, and are of a fine blue Colour. After the Flower is past, the Germina become three-horned Pods, or Vessels, which are filled with wrinkled Seeds.

The Seeds of this Plant were sent from *Petersburgh* by the late Dr. *Amman*, who was Professor of Botany there, with Two other Species, which were Natives of *Tartary*; from whence he had received their Seeds. One of these Sorts grows to the Height of Four Feet; the Leaves are hoary, the Segments cut almost to the Bottom, and are pretty hard: The other seldom rises Two Feet high; the Leaves are divided into many narrow Segments at the Bottom; the Flowers are but few on each Spike, and are large, and of a deep blue Colour. This, I suppose, is what Doctor *Linnæus* has titled, *Delphinium nectariis diphyllis labellis integris, floribus subsolitariis, foliis compositis lineari multipartitis, Hort. Upsal.* To which he has added the Synonima of *Delphinium elatius subincanum perenne floribus amplis azureis Amman.* by which Title I received the Seeds of the Plant here represented from Doctor *Amman*: So that he must be mistaken in the Plant; for the Seeds of the other Two Sorts I received from the same Gentlemen by different Names. It is probable that the Plant here figured may be the *Delphinium Lusitanicum glabrum, Aconoti folii Rolof.* which is another Synonima added by Doctor *Linnæus* to the Title above quoted.

These Three Sorts have been several Years cultivated in the *Chelsea* Garden, where the Seeds have been frequently sown, and the young Plants have always retained their specific Difference, without the least Variation; therefore there can be no Doubt of their being distinct Species.

PLATE CXX.

DIGITALIS, *Tourn. Inst. R. H.* 165. *Tab.* 73. *Raii Meth. Plant.* 89. *Lin. Gen. Plant.* 676. Foxglove; *in* French, *Digitale.*

THIS Genus of Plants is by *Tournefort* ranged in the Third Section of his Third Class, which includes the *Herbs with an anomalous Flower of one Leaf, which spreads open every Way.*

Mr. *Ray* places it in the Second Division of his Nineteenth Class of Plants, which contains the *Vasculiferous Plants with an irregular difform Flower.*

Doctor *Linnæus* ranges it in the Second Division of his Fourteenth Class of Plants, intituled, *Didynamia Angiospermia.* The Flowers of this Class have Two long and Two shorter Stamina, and are succeeded by oval Capsules, containing many naked Seeds.

The Species here represented is,

DIGITALIS *calycinis foliolis lanceolatis, corollis bilabiatis acutis, caule fruticoso, Lin. Sp. Plant.* 622. Foxglove with a shrubby Stalk, spear shaped Leaves to the Empalement, and the Two Lips of the Flower pointed.

This is the *Digitalis acanthoides Canariensis frutescens flore aureo, Hort. Amst.* 2. *p.* 205. and *Gesnerio foliis lanceolatis serratis pedunculo terminali laxe spicato, Hort. Cliff.* 318. commonly called Canary Foxglove.

a, shews the Empalement of the Flower; *b*, the upper Lip, which is extended beyond the other Parts of the Flower. *c*, shews it single, when divested of the Tube; *d*, the Two long and Two short Stamina; *e*, the Two Stigma; *f*, the Seed-vessel, inclosed by the Empalement; *g*, the same cut thro' longitudinally; *h*, the Vessel cut thro' transversly, to shew the Cells in which the Seeds are lodged.

This Plant has been long an Inhabitant in some of the curious *English* Gardens, where, by its long Continuance in Flower, it makes a fine Appearance when intermixed with other exotic Plants. It rises to the Height of Four Feet, having a woody Stem, which divides into several Branches: These are garnished with oblong spear-shaped Leaves, which are rough, and placed without Order. At the Extremity of each Branch the Flowers are produced, in loose Spikes near a Foot in Length: These are of an Orange Colour intermixed with yellow, and are shaped somewhat like the Flowers of *Acanthus*; from whence Doctor *Commeline* gave it the Title of *Digitalis Acanthoides.*

This Plant grows naturally in the *Canary Islands*, from whence the Seeds were brought to *England*, and many of the Plants were raised in the Gardens of the Bishop of *London* at *Fulham*, and also in the Royal Gardens at *Hampton-Court*, where they were several Years preserved: But, after the Bishop's giving away his tender exotic Plants, they were destroyed; so that scarce any of the Plants were left in *England*, till within about Twenty Years past, since when many of them have been propagated from Seeds, which, in good Seasons, the Plants produce plentifully in *England*.

As the Flowers are produced in Spikes, at the Extremity of every Branch, so, as new Shoots are put out at different Times, these come to flower at different Seasons; and hereby the Plants are seldom long destitute of Flowers when properly managed: And where a Number of the Plants are preserved, there will be constantly some in Flower at every Season, which renders the Plants more valuable.

They are too tender to live in the open Air thro' the Winter in *England*, but require no artificial Heat to preserve them; so that if the Plants are placed in a dry airy Greenhouse in Winter, they will thrive very well; but in a moist damp Air the tender Shoots are very subject to grow mouldy and rot.

This Plant is only propagated by Seeds, which should be sown soon after they are ripe, in Pots filled with light sandy Earth, and placed under a Frame in Winter; and in the Spring following the Pots should be plunged into a moderate Hot-bed, which will bring up the Plants.

PLATE

PLATE CXXI.

DIANTHUS, *Lin. Gen. Plant.* 500. *Caryophyllus, Raii Meth. Plant.* 109. *Tourn. Inst.* 329. Clove-Gillyflower; in *French, Oeillet.* Commonly called Carnation in *England.*

THIS Genus of Plants is ranged by Doctor *Linnæus* in the Second Division of his Tenth Class, intituled, *Decandria Digynia*, from the Flower having Ten Stamina, and Two Styles. Mr. *Ray* places it in his Twenty-second Class of Plants, intituled, *Herbs with a Flower of Five Leaves, whose Seeds are contained in Pods. Tournefort* ranges it in his Eighth Class, which he titles, *Herbs with a Flower of many Leaves, whose Pointal turns to a Fruit.* This Genus has been, by most of the Writers on Botany, titled *Caryophyllus*, from the Smell of the Flowers resembling that of *Cloves*; and from thence came the *English* Name of *Clove-Gillyflower*, to distinguish it from that of *Stock-Gillyflower.* It has also by some been titled *Tunica*; but this has been oftener applied to some particular Species than to the Genus. Some of the Antients have supposed it was called *Vettonica*, or *Betonica*, from the *Vettones*, a People of *Spain.*

In a former Number there were Two Species of this Genus exhibited under the former Title of *Caryophyllus*, at which Time it was not proposed to have added any more; but several of the Subscribers being desirous to have One or Two good Flowers of this Kind represented, we have, to comply with their Request, added this and the following Plate.

This is the

DIANTHUS *floribus solitariis squamis calycinis subovatis brevissimis, corolla multiplici.* Dianthus with Flowers growing singly, a scaly Empalement, which is short, and a double Flower. This is best known by the Appellation of *Carnation* with a flaked Flower.

There are great Varieties of this Flower in the Gardens of the curious Florists, who have of late Years much improved them; but they frequently alter in their Taste about them. Some Years ago the very large Flowers, whose Pods could not contain their numerous Petals, were principally cultivated, as were also those with spotted Flowers, commonly called *Piquettees*; but at present those Flowers which do not burst their Empalement, and are termed *Whole Blowers*, are in the greatest Esteem; as also such of them as have full Stripes in their Petals, with lively Colours, whose Petals are intire, and not jagged at their Edges: These are by the Florists called *Rose-leav'd Flake-Flowers*, to distinguish them from *Piquettees.* As every Season produces many new Kinds of these Flowers, so there are Titles given to them according to the Fancy of the Owner; so that in every County their Names are frequently different; therefore the inserting of them here would be intirely useless. The Two Flowers which are here represented were raised from Seeds, and have not been honoured with Titles; however, as they are such as the Florists term complete Flowers, they will convey an Idea of this Distinction to such as are not thoroughly acquainted with it.

The single Flower represented below is to exhibit the Characters of the Genus, which are not so conspicuous in double Flowers; for although many of those have the Organs of the different Sexes perfect, and produce good Seeds, yet are they so covered with the Petals of the Flower as not to be seen, unless they are pulled out; whereas in the single Flowers the Stamina and Styles appear at first View.

a, represents the Flower fully blown, with the Stamina and Styles in their natural Position; *b*, shews the Ten Stamina, with their Summits arising from the Empalement, standing round the oval Germen; *c*, represents the Two horned Styles arising from the Apex of the Germen; *d*, shews the Germen taken out of the Empalement, which hath Three Styles, which is not uncommon in these Flowers; so we judged it might be of Use to exhibit them here; *e*, represents the Seed-vessel cut open longitudinally, to shew how the Seeds are ranged.

The other Characters of this Genus, with a full Account of the Culture of the Plants, being exhibited in the *Gardener's Dictionary*, we shall not repeat them here.

PLATE CXXII.

THIS Plant being of the same Genus with that which is exhibited in the former Plate, there requires no farther Account of the Class to which it belongs.

The Species here exhibited is,

DIANTHUS *floribus aggregatis fasciculatis squamis calycinis linearibus tubum æquantibus, floribus variegatis.* Dianthus with Flowers growing in Clusters, having very narrow Scales to their Empalement, the Tubes equal, and the Flowers variegated. This is the *Carophyllus barbatus hortensis angustifolius flore niveo, umbone rubro, Park. Par.* Narrow-leav'd bearded Garden Clove-Gillyflower, with a white Flower, having a red Middle. It is commonly called Painted Lady Sweet William.

a, represents the Bunch of Flowers terminating the Stalk; *b*, the Petals of the Flower, which are sawed on their Edges; *c*, the Beards or Scales of the Empalement, which are very narrow; *d*, the Ten Stamina, with their Summits arising from the Bottom of the Flower; *e*, the Two Styles sitting upon the Germen; *f*, the Seed-vessel cut open horizontally; *g*, the same opened longitudinally.

The Plants of this Sort have, by many Botanists, been separated from this Genus, and the Title of *Armerius* applied to them; and from thence our *English* Names of *Sweet William* and *Sweet John* have been given them. The first has generally been applied to those with broad Leaves; and the latter to the narrow leav'd Sorts, by the Gardeners: But most of the later Botanists have placed these under the Genus of *Caryophyllus*, and, by way of Distinction, have added the

Epithet of *Barbatus* to them, from the narrow stiff Leaves which are ranged below the Empalement.

Doctor *Linnæus* has also joined these under his Genus of *Dianthus*, distinguishing them from the Carnations by the additional Epithets of *floribus aggregatis*; but he supposes but One Species of the *Garden Sweet William*, and all the others to be only Varieties which have arisen from Seeds: In which I so far agree with him, as to allow the Difference in the Colours of the Flowers to make no Distinction, because these annually change; but the broad-leav'd and narrow-leav'd Sorts keep their Difference, so they may be allowed as distinct Species: Of each Sort there are many Varieties, differing in Colour and Form; and some have double Flowers which never produce Seeds, so are propagated by Slips or Layers.

The single Sorts seldom live longer than Two or Three Years; therefore young Plants should be annually raised from Seeds, to supply their Place; and although many of the Roots will continue longer than Two Years, yet their Flowers will not be so strong as those of the Second Year; therefore young Plants should always be preferred to old. In the Choice of the Seeds, those Flowers which are the most beautiful should be marked; and if all those of bad Colours are separated from them, as soon as they can be distinguished, the Plants produced from the Seeds will be less liable to vary: And if the Seeds are frequently changed with Persons who live at a considerable Distance, and the Soils in which the Plants grow are very different, the Colours of the Flowers may, by this Method, be better preserved than can, with the greatest Care, be done, where the Seeds are for many Years saved in the same Garden.

The *Painted Lady Sweet William* here represented, is one of the most elegant Flowers of this Tribe, and therefore better worth propagating for the Flower-Garden; for the Plants of this grow more compact, and the Flower-Stems are shorter, and therefore not so liable to be blown down or broken, as those of the other, and there will always be a great Variety in the different Shades of the Flowers, so do not require any Addition of the other Colours to be intermixed with them. Those of the tall-growing Sorts, with very deep coloured Flowers, are very proper Ornaments for large rural Walks, or to intermix with Shrubs; where they will thrive with little Care, and afford a pleasing Variety.

PLATE CXXIII.

DICTAMNUS, *Lin. Gen. Plant.* 468. *Fraxinella, Raii Meth. Plant.* 79. *Tourn. Inst. R. H.* 430. *Tab.* 243. Fraxinella, *or* White Dittany; *in* French, *Fraxinelle.*

THIS Genus of Plants is ranged in the Tenth Class of *Linnæus*, intituled, *Decandria Monogynia*, from the Flower's having Ten Stamina, and one Style. Mr. *Ray* places it in his Eighteenth Class of Plants. The Flowers of this Class are irregular, and are succeeded by several Pods. *Tournefort* ranges it in the Second Section of his Eighth Class, intituled, *Herbs with a Flower of many Leaves, of an anomalous Figure, whose Pointal becomes a Fruit consisting of many Cells.*

The Plant here represented is,

DICTAMNUS, *Hort. Cliff.* 161. White Dittany, or Fraxinella. This is the *Fraxinella purpurea major multiflora, Il. R. Par.* Great Purple Fraxinella, with many Flowers.

a, represents the upper Petals of the Flower, which stand erect; *b*, shews the Ten recurved Stamina, with their Summits; *c*, the Style which sits upon the Germen, and is extended the Length of the Stamina; *d*, the Seed-vessel, composed of many Cells; *e*, shews the Seed as it is lodged in the Cells; and *f*, the Seeds taken out of the Case.

This Plant grows naturally upon the Mountains in *Italy*, and in some Parts of *Germany*; but is propagated in *England*, for the Beauty of its Flowers. Doctor *Linnæus* supposes there is but One distinct Species of this Genus, and the others are only seminal Variations from it. The Sort with white Flowers is so; for I have had these come up from the Seeds of the purple: But that which is here figured, is certainly a different Species from the common Sort; for I have always found, that the Seeds of this produced Plants of the same Kind, though some of them have differed in the Colour of their Flowers. The common Sort hath short Spikes of Flowers, which grow thinly on the Stalks, so are not near so beautiful as this, which has occasioned its being disregarded; whereby it is much more rare in the *English* Gardens; which often happens to many other Plants, for the same Reason.

The Roots of this Plant continue many Years; but the Stalks decay in the Autumn, and new ones are produced every Spring. The older the Roots are, the greater Number of Stalks will be sent forth from each, provided they are not disturbed; for how long these Roots will continue in Vigour, is hard to determine: I have many which are more than Thirty Years old, and annually increase in their Strength: These send out near Twenty Stalks from each Root, which grow tall, and have long Spikes of Flowers; whereas young Plants seldom have more than Three or Four Stems, and the Number of Flowers upon each are much fewer; therefore those who propose to have this Plant in Perfection, should plant the Roots, when young, in the Places where they designed to remain; for they do not bear transplanting well, when they are old.

The Stalks of this Plant rise near Three Feet high. These are garnished with winged Leaves, placed alternately; each being composed of Four or Five Pair of Lobes, with an odd one at the End, like those of the *Ash-Tree*, but are smooth on their upper Surface, of a dark green shining Colour; on the upper Part of the Stalk the Flowers are produced on every Side, forming a pyramidal Thyrse, or loose Spike. These are composed of Five or Six unequal Petals, which are irregularly disposed, Four of the upper ones being much larger than the lower, and stand erect; the others turn downward, and are, in this Sort, of a purplish Colour, marked with Stripes of a deeper: From the Empalement there arise Ten long Stamina, crowned with roundish yellow Summits; these are reflexed, and turn upwards; between which is situated a Style of the same Length, sitting upon a five-cornered Germen, which afterwards turns to a Vessel with Five Cells, in which are lodged many smooth shining black Seeds, which are hard. This Plant flowers in *May* and *June*, and the Seeds ripen in *October*: The Leaves and Flowers have a strong balsamic Smell. The Roots of it are used in Medicine.



DIANTHUS *floribus solitariis squamis calycinis subovatis brevissimis corolla multiplici.*

R. Lancake delin. — J. S. Miller sculp.

Publish'd according to Act of Parliament by P. Miller Nov.r 30.th 1756.

Gilly Flower



DIANTHUS, *floribus aggregatis fasciculatis squamis calycinis linearibus tubum aequantibus floribus variegatis.*

R. Lancake delin. J. S. Miller Sculp.

Published according to Act of Parliament by P. Miller November 30 1756

Sweet William



DICTAMNUS, *Hort: Cliff:* 162.

R. Lancake delin. Published According to Act of Parliament by P. Miller Nov.r the 30th 1756. J. S. Miller Sculp.



Fig. 1, DIOSMA, *foliis linearibus glabris acutis.*
Fig. 2, DIOSMA, *foliis lineari-lanceolatis subtus convexis bifariam imbricatis. Lin. Sp. plant. 198.*

R. Lancake delin. — J. S. Mil. Sculp.

Publish'd according to Act of Parliament by P. Miller Oct.r 1756.

Diosma



DIERVILLA, *Acadiensis fruticosa flore luteo Tourn. Act. 1706*

R. Lancake delin. J. S. Miller sculp.

Publish'd according to Act of Parliament by P. Miller Nov. 30. 1756



Diospyrus, *foliorum paginis discoloribus _ Linn: sp. plant 105.*

PLATE CXXIV.

DIERVILLA, *Tourn. Mem. Acad. R. S.* 1706. *Boerh. Ind. Alt.* 277. *Lonicera, Lin. Gen. Plant.* 210. We have no *English* Name for this Plant.

THIS Genus of Plants should be ranged in *Tournefort's* Twentieth Class, according to his System, in which he includes the Trees and Shrubs, with a Flower of One Leaf, whose Empalement turns to a Berry. Doctor *Linnæus* has joined this to his Genus of *Lonicera*, and ranges it in his Fifth Class of Plants, intituled, *Pentandria Monogynia*, from the Flower having Five Stamina, and One Style. To this Genus he has added the *Caprifolium*, *Periclymenum*, *Chamæcerasus*, and *Xylosteum*, of *Tournefort*, and the *Symphoricarpos* of *Dillenius*; in which he has not strictly followed Nature: For if the Flowers only are admitted as characteristic Notes, some of these must be separated; but if the Fruit be allowed as a Mark of the Genera, it will still cause a further Alteration; for as the Fruit of this Plant hath Four Cells, and those of *Lonicera* but Two, so I judge it will be more intelligible to those who are not Adepts in Botany to keep them distinct.

We know but One Species of this Plant at present; which is here represented.

DIERVILLA *Acadiensis, fruticoso flore luteo, Tourn. Ac. R. S.* 1706. Shrubby Diervilla of Acadia, with a yellow Flower.

a, represents One of the Flowers separated from the Bunch, shewing its long Tube, with the upper Part divided into Five Segments; *b*, shews the Flower cut open, with Part of the Tube taken off; *c*, represents the Five Stamina, and the Style; *d*, shews Two Stamina taken out of the Flower, with their round Summits; *e*, represents the tubulous Empalement, which is cut into Five acute Segments at the Top. Doctor *Linnæus* titles this Plant *Lonicera racemis terminalibus, foliis serratis, Sp. Plant.* 175.

This Plant was first brought to *Europe*, from *Acadia*, by Mr. *Dierville*, a *French* Surgeon: So *Tournefort*, upon examining its Characters, and finding it would not range in any of his Genera, constituted a new Genus, and applied it to the Name of the Person who brought it. Since then the Plant has been found growing naturally in several of the Northern Parts of *America*, and particularly in *Nova Scotia*, in great Plenty.

It is a low Shrub, which seldom rises more than Three Feet high; the Stalks are slender and woody; these have a reddish-coloured Bark, and are garnished with oblong pointed Leaves, which are slightly sawed on their Edges. They are placed by Pairs opposite at the Extremity of the Stalk. There is often One or Two small Branches produced, each of which is terminated by a loose Bunch of yellow Flowers, which have long Tubes, and are cut into Five Parts at the Top, which turn backward. These, in the native Country of their Growth, are succeeded by oval Berries, which, when ripe, are of a black Colour, and have Four Cells, in each of which is lodged a single hard Seed. In *England* the Berries are rarely formed; and those which sometimes do appear, never come to Maturity.

The Roots of this Plant creep far under Ground, and send out many Stems, by which it propagates very fast. As these rise during the Summer Months, so many of those which come up in the Spring produce Flowers the same Year; and hereby there is generally a Succession of Flowers from *May* to *September*; for the Shoots of the former Year begin to flower early in the Summer, and the Branches from the Sides of these soon follow; and before these are over, some of the young Shoots will begin to shew their Flowers; which renders the Plant more valuable.

PLATE CXXV.

DIOSMA, *Lin. Gen. Plant.* 241. *Spiræa, Com. Rar. Pl.* 2. African Spiræa vulgò.

THIS Genus of Plants is ranged in *Linnæus's* Fifth Class, intituled, *Pentandria Monogynia*; the Flower having Five Stamina, and One Style. These Plants have been always ranged under the Genus of *Spiræa* by the Writers on Botany: But, according to *Linnæus's* System, they must be separated, on account of the Number of Stamina in the Flowers; for in these there are but Five, whereas those of the *Spiræa* have Twenty: Beside this, there is a five-pointed Nectarium in these Flowers, which is wanting in the *Spiræa*; but as to the Number of Petals in the Flower, and the Form of the Seed-vessel, they agree with the Common *Spiræa*, so might, according to former Systems, be ranged with it.

The Species here represented are,

Fig. 1. DIOSMA *foliis linearibus glabris acutis.* Diosma with narrow smooth Leaves, terminating in a Point.

This Sort approaches near to the *Spiræa Africana odorata foliis pilosis, Com. Rar. Pl.* 3. But the Leaves of this are longer, more pointing, and smooth; in which they differ. This Plant was raised in the Garden at *Chelsea*, some Years past, from Seeds which were sent from the *Cape of Good Hope*; and since then many Plants have been raised from the Seeds which have ripened in *England*, which retain their Difference; therefore it may be put down as a distinct Plant.

It is a shrubby Plant, growing Three or Four Feet high, sending out many lateral Branches, which extend

pretty

pretty wide every Way, so as to form a large bushy Head. The Leaves are pretty long and narrow, ending in a sharp Point: They are of a light green Colour, and smooth; and when bruised, emit a strong balsamic Odour. The Flowers grow in small Clusters, toward the Extremity of the Branches, which are white, and are composed of Five obtuse Leaves or Petals, as is represented at *a*; in the Bottom of each Flower is situated a five-cornered Nectarium, which is shewn at *b*; this sits upon the Germen, which afterward turns to a five-cornered Vessel, represented at *d*, which hath Five Cells, containing several hard shining black Seeds; *c*, shews the Five Stamina of the Flower, which lie flat between the Petals.

Fig. 2. DIOSMA *foliis lineari lanceolatis subtus convexis bifariam imbricatis, Lin. Sp. Pl.* 198. Diosma with narrow spear-shaped Leaves, which are convex on their under Side, and ranged Two Ways, like Tiles. This is the *Spiraea Africana, Ericae bacciferae foliis, Raii Hist.* 3. 91. *African* Spiraea, with Leaves like the Berry-bearing Heath.

This is a low bushy Shrub, which seldom rises above Two Feet high; but spreads out its Branches far on every Side: These are garnished with narrow smooth Leaves, of a light green Colour, which are ranged on each Side the Branches, so appear flat on the upper and under-Side; when these are bruised, they emit a very strong penetrating Odour. The Flowers of this Sort are produced singly from between the Leaves, and are composed of Five Petals, which are white, and tinged on their upper Surface, as represented at *e*. In this, the Nectarium is less visible than the former, and the Seed-vessels are much smaller, but of the same Form.

These Plants grow naturally at the *Cape of Good Hope*, where there are many other Species of this Genus; some of which have been lately introduced to the *English* Gardens, where they are very ornamental Plants to the Green-house; for they are seldom destitute of Flowers. They are propagated either by Seeds or Cuttings: The latter, being the most expeditious, is more generally practised; for the Seeds seldom grow the First Year, but lie in the Ground till the following Spring. The Cuttings may be planted in any of the Summer Months, in Pots filled with light Earth, and plunged into a gentle Hot-bed, which will take Root in Five or Six Weeks.

PLATE CXXVI.

DIOSPYROS, *Lin. Gen. Plant.* 1027. *Guajacana, Tourn. Inst. R. H.* 600. *Tab.* 371. *Indian* Date Plum.

THIS Genus of Plants is ranged in *Linnaeus's* Twenty-third Class, and the Second Division, intituled, *Polygamia Dioecia*. These are Male and Female in different Plants.

Tournefort ranges it in the Second Section of his Twentieth Class, which includes the Trees and Shrubs with a Flower of One Leaf, whose Pointal turns to a Fruit with a stony Seed.

The Characters of this Genus are exhibited in the *Gardener's Dictionary*.

The Species here represented is,

DIOSPYROS *foliorum paginis discoloribus, Lin. Sp. Plant.* 1057. *Indian* Date Plum, with Leaves whose upper and under Sides are of Two Colours. This is the *Guajacana, J. B.* 1. 138. and the *Lotus Africana latifolia, C. B. P.* 447. Broad-leav'd *African* Lotus.

a, represents an intire Male Flower; *b*, shews the same, cut open; *c*, shews the Eight short Stamina, with their round Summits.

By some this is titled *Guajacum Patavinum*; others call it *Pseudolotus Africana*: But the Title of *Diospyros*, which is applied to it by *Linnaeus*, is taken from *Theophrastus*, who had given it to some Plant nearly allied to this, if it was not the same.

Where this is a Native is difficult to determine; but it is generally supposed it was brought from *Africa* to *Europe*, and the particular Place is thought to be *Mauritania*, where some of the Trees are now growing; though these may possibly have been transplanted from some other Country. The Occasion of its being called *Guajacum Patavinum*, was from One or Two very old Trees growing in the Garden at *Padua*, and the native Country from whence they were brought being unknown. There are some who have mentioned this Tree to grow naturally in *Italy*, and the South of *France*; but from the best Information I can get, these have been planted there. This Tree has been but few Years in the *English* Gardens. The Seeds of it I procured from the Garden at *Padua*, where the Fruit constantly ripens; for in the *Dutch* Gardens, where I saw Two or Three pretty large Trees, they never produce any Fruit.

In warm Countries these Trees grow to a large Size, and extend their Branches far every Way. These are well garnished with oblong Leaves ending in a Point, the upper Surface of them having a shining Cast of a Copper Colour, and their under Surface a little inclining to white: These are ranged alternately on the Branches. The Flowers are produced single out of the Side of the Branches between the Leaves, having very short Foot-stalks. They are shaped like a Pitcher, and are of a worn-out purple Colour. The Fruit is the Size of a middling Plum, of a pulpy Substance, black when fully ripe, and incloses several oblong compressed Seeds. This Fruit is eaten after it hath lain some time to mellow, like the *Medlar*, and is by some Persons esteemed.

We have no Trees large enough in *England* yet to bear Fruit; but Two of the Male Sort have produced Flowers in the *Chelsea* Garden. While young the Plants are impatient of Cold, the Frost sometimes killing the Extremities of their Shoots; but in a few Years they grow hardy enough to resist the greatest Cold of this Country, in a warm Situation.

PLATE CXXVII.

DODARTIA, *Tourn. Cor.* 47. *Tab.* 478. *Lin. Gen. Plant.* 698. We have no English Title for this Plant.

THIS Genus of Plants must be ranged in the Third Section of *Tournefort*'s Third Class, which includes those Plants that have an anomolous Flower of One Leaf, opening on both Sides. Doctor *Linnæus* ranges it in the Second Section of his Twelfth Class, intituled, *Didynamia Angiospermia*; the Flowers of this having Two long, and Two short Stamina, and the Seeds are inclosed in a Capsule. It must be ranged in the Second Section of Mr. *Ray*'s Nineteenth Class of Plants, intituled, *Herbs with a difform Flower of One Leaf, whose Seeds are contained in a Capsule.*

The Species here represented is,

DODARTIA *foliis linearibus integerrimis glabris, Lin. Sp. Plant.* 633. Dodartia with very narrow intire smooth Leaves. This is the *Dodartia Orientalis flore purpurascente, Tourn. Cor.* 47. Eastern Dodartia with a purplish Flower.

This Plant was discovered by Doctor *Tournefort* in *Armenia*, from whence he sent the Seeds to the Royal Garden at *Paris*, where they succeeded; and the Plants have since been communicated to most of the curious Gardens in *Europe*. He gave this Title to it in Honour of Monsieur *Dodart*, Member of the Royal Academy of Sciences at *Paris*, and Physician to her Royal Highness the Princess of *Conti*.

It hath a perennial creeping Root, by which it greatly multiplies; the Stalks rise about a Foot and a Half high, strait, firm, smooth, and of a bright Green; sending out many Side Branches from the Bottom, upward, so as to form a sort of low Bush; at each Joint comes out One or Two narrow Leaves, about an Inch long, which are fleshy, and jagged a little on their Sides, especially those which come out toward the Bottom: The upper Parts of the Branches are adorned with Flowers, which come out singly from the Joints; these are of a deep purple Colour, and about an Inch long; the Bottom is tubulous, and divides into Two Lips, as is represented at *a*, and *b*: The upper Lip being hollow like a Spoon, as is represented at *c*, the convex Side standing upward, and divided into two Parts: The lower Lip is divided into Three Parts, as is represented at *d*, the middle one being very small. The Empalement of the Flower is short, smooth, and divided into Five Parts, into which is inserted the roundish Germen, supporting a crooked Style, represented at *e*, which is crowned by an obtuse Stigma. This is attended by Four Stamina; Two of which are short, and Two longer, represented at *f*: The Germen afterward turns to a spherical Capsule, opening in Two Cells, which are filled with small brown Seeds.

This Plant thrives very well in the full Ground, and requires no Protection in Winter, and propagates very fast by its creeping Roots; the Flowers come out in *July*, and the Seeds ripen in *September*, and, in a Month after, the Stalks decay to the Root.

PLATE CXXVIII.

DORONICUM, *C. B. P.* 184. *Raii Meth. Plant.* 33. *Tourn. Inst. R. H.* 487. *Tab.* 277. *Lin. Gen. Plant.* 862. Leopards Bane.

THIS Genus of Plants is ranged in *Tournefort*'s Fourteenth Class, intituled, *Herbs with radiated Flowers, whose Seeds are crowned with Down.* Mr. *Ray* places it in his Seventh Class, which includes the Herbs with a radiated discous Flower, with a downy Seed. Doctor *Linnæus* ranges it in the Second Division of his Nineteenth Class, intituled, *Syngenesia Polygamia superflua*; from the Heads containing many Female and Hermaphrodite Flowers in One common Empalement. To this Genus he has added the *Belidiastrum* of *Micheli*; and he has separated some of the Species, which had been included in this Genus, to another, under the Title of *Arnica*, because their Female Flowers have Five Stamina, which the Flowers of this Genus have not.

The Species here represented is,

DORONICUM, *foliis cordatis obtusis, radicalibus petiolatis, caulinis amplexicaulibus, Lin. Mat. Med.* 394. Leopards Bane, with blunt Heart-shaped Leaves; those from the Root having Footstalks, but the upper Leaves embracing the Stalks. This is the *Doronicum maximum, foliis caulem amplexantibus, C. B. P.* 184. Greatest Leopards Bane, with Leaves embracing the Stalks; and the *Doronicum* VII *Austriacum* 3. *Clus. Hist.* 2. *p.* 19.

The Root of this Plant is thick and fleshy, and hath many Joints or Knees, sending down strong thick Fibres into the Ground. The Leaves, which rise immediately from the Root, are hairy, soft, and Heart-shaped, having a long Footstalk represented at *a*; from the Root arises a pretty strong channelled hairy Stalk, near Two Feet high, which are garnished with oblong Heart-shaped Leaves closely embracing the Stalks at their Base, as at *b*; these are hairy and soft: The upper Part of the Stalk divides into Three or Four smaller, each being terminated by a single Head of Flowers, included in One common Empalement, composed of a double Series of Leaves, which are narrow, and as long as the Rays or Border of the Flower, as is represented at *c*; the Border or Rays of the Flower, marked *d*, is composed of many Female Flowers, which have a short Tube, and are stretched out at the Top on the Side like a Tongue, as is represented at *e*. The Disk, or middle of the Flower, is composed of many Hermaprodite Flowers,

Flowers, which are tubulous, Funnel-shaped, and cut into Five Parts at the Top, as is shewn at *f*; where it sits upon a Germen, which afterward becomes a single oval compressed Seed, as at *g*, crowned by an hairy Down. The Flowers are of a bright yellow Colour, and appear in *May*, which is the Season when there are the greatest Number of Flowers; but in moist cool Summers there is frequently a Succession of Flowers till Autumn. The Seeds ripen in *August*, which are dispersed by the Winds, whereby the Plant propagates very fast. It grows naturally upon the *Alps* and Mountains in *Germany*; and is supposed by many to be a very poisonous Plant, which will destroy *Wolves*, *Dogs*, and other *Animals*; though others recommend it as an Antidote to expel the Poison of *Scorpions*. The Roots are the only Parts of the Plant used, and that but seldom; though it has a Place among the medicinal Simples in most Dispensaries.

PLATE CXXIX.

DRACOCEPHALUM, *Lin. Gen. Plant.* 648. *Moldavica, Tourn. Inst. R. H.* 184. *Tab.* 85. *Raii Meth. Plant.* 64. Dragons Head, or *Moldavian* Baum.

THIS Genus of Plants is ranged in Doctor *Linnæus*'s First Section of his Fourteenth Class, intituled, *Didynamia Gymnospermia*; the Flowers having Two long and Two short Stamina, and being succeeded by naked Seeds. To this Genus he has joined the *Moldavica* of *Tournefort*, of which Genus this is a Species. *Tournefort* places this Genus in his Fourth Class of Plants, and in the First Section, in which he includes the Herbs with a libiated or lipp'd Flower, whose upper Lip is galeated and falcated. Mr. *Ray* ranges it in his Fourteenth Class of Plants, which includes the Herbs whose Flowers grow in Whorles round the Stalks.

The Species here represented is the

DRACOCEPHALUM, *floribus verticillatis bracteis oblongis, serraturis spinosis foliis subtomentosis, Lin. Sp. Plant.* 595. Dragons Head, with oblong spinous Bracteii, and woolly Leaves. This is the *Moldavica Orientalis betonicæ folio, flore magno violaceo, Tourn. Cor.* 11. Eastern *Moldavian* Baum, with a Betony Leaf, and a large Violet Flower; and the *Dracocephalum, floribus verticillatis, foliis lanceolatis floribus oblongis, Hort. Cliff.* 308. Dragons Head, with Flowers growing in Whorles, Spear-shaped Leaves and oblong Flowers.

This Plant was discovered by Doctor *Tournefort* in the *Levant*, who sent the Seeds of it to the Royal Garden at *Paris*, where it succeeded; and from thence the Gardens in most Parts of *Europe* have been furnished with this Plant.

It is generally called an annual Plant; but I have frequently had the Roots live Two Years, especially when the Winters have proved favourable, and those have flowered early the following Summer. But as the Plants which come up from Seeds in the Spring, do perfect Seeds the same Year, so there are few Persons who regard the Roots after. The Stalks of this Plant are square, and rise a Foot and a Half high; these are hoary, and divide into Two or Three smaller Branches, which are garnished with oblong Leaves, placed by Pairs opposite at each Joint, and are hoary on their under Side, with several longitudinal Veins running through them. From the Wings of the Leaves the Flowers are produced in Whorles round the Stalks, having Three or Four small roundish Leaves growing to the Base of their Footstalks, which is represented at the End of the Footstalk of the Flower *a*, (these are what *Linnæus* terms Brachæa) deeply sawed at the Edges, each Serrature ending in a soft Spine. The Empalement of the Flower is tubular, and of One Leaf, and slightly cut at the Top into Five Parts. The Flower is of that Kind which *Linnæus* terms *ringent (grinning)*, and by *Tournefort*, *Ray*, and others, is called *Lip Flower*; it is of One Leaf, having a long Tube, and divided at the Top into Two Lips, as is represented at *a*; the upper Lip is forked and erect, the lower Lip is cut into Three Parts. *b* represents the tubular Empalement of the Flower. *c* shews the Four Stamina; Two of which stand erect, and the Two longer incline to the lower Lip, turning up their blunt Stigma. These Flowers are of a violet Colour, and appear about the End of *June*; but there is a Succession of them, towards the Tops of the Stalks, near Two Months, in moderate Seasons. After the Flower is past, the Empalement *d*, becomes the Cover to the Seeds; which are generally Four to each Flower, as represented at *f*; these stand naked round the Receptacle *e*. The whole Plant hath an aromatick Scent.

PLATE



DODARTIA, *foliis linearibus integerrimis glabris.* Lin. Sp. plant. 633.

R. Lancake delin.

J. S. Miller sculp.

Publish'd according to Act of Parliament by J. Miller November 30. [illegible]

Dodartia



DORONICUM, *foliis cordatis obtusis, radicalibus petiolatis caulinis amplexicaulibus. Lin. Mat. Med. 394.*

Publish'd according to Act of Parliament by P. Miller December 1756

Leopard's bane



DRACOCEPHALUM, *floribus verticillatis bracteis oblongis serraturis spinosis foliis subtomentosis Hort Upsal 66.*

R. Lancake delin — J. S. Miller Sculp.

Publish'd according to Act of Parliament by P. Miller Dec.r 20 1756.

Dragon's Head



ECHINOPS, *calycibus unifloris caule unicapitato.* Lin. Sp. pl. 815.

R. Lancake delin. J. S. Miller sculp.

Publish'd according to Act of Parliament by P. Miller Dec. 20, 1758



Fig. 1. ELICHRYSUM, Africanum frutescens angustis & longioribus foliis incanis Hort. Amst.

Fig. 2. ELICHRYSUM, foliis linearibus decurrentibus subtus incanis floribus corymbosis.

R. Lancake delin. J. S. Miller sculp.

Publish'd according to Act of Parliam^t by

Eternal Flower



Fig. 1. EMERUS, Cæsalp. 117

Fig. 2. EMERUS, minor Tourn. Inst. R. H. 650

G. D. Ehret delin. · Published according to Act of Parliament by P. Miller Decem. the 2d 1756 · Miller sc.

Scorpion Sena

PLATE CXXX.

Echinops, *Lin. Gen. Plant.* 829. *Echinopus, Tourn. Inst. R. H.* 463. *Tab.* 262. *Carduus Sphærocephalus, Raii Meth. Plant.* 43. The Globe Thistle.

THIS Genus of Plants is ranged in the First Section of *Linnæus*'s Nineteenth Class, intituled, *Syngenesia Polygamia Æqualis. Tournefort* places this Genus in the Fourth Section of his Twelfth Class of Plants, intituled, *Herbs with a flosculous Flower, whose Florets are equally cut at the Top, and each sits in its proper Empalement.* Mr. *Ray* ranges it in his Ninth Class, which he titles, *Corymbiferis affines.*

The Species here represented is,

Echinops, *caliculis unifloris, caule unicapitato, Lin. Sp. Plant.* 815. Globe Thistle with one Flower in each Empalement, and One Head upon each Stalk: This is the *Echinopus minor, J. B.* 3. 72. Smaller Globe Thistle. By *Lobel* it is titled, *Ritro, floribus cæruleis, Icon.* 8. *Caspar Bauhin* titles it, *Carduus Sphærocephalus cæruleis minor, Pin.* 381. Smaller blue Globe Thistle.

This Plant hath a perennial Root and an annual Stalk. The Root is composed of many strong rough fleshy Fibres, which creep in the Ground; from which arise several white Stalks about Two Feet high, which are garnished with long Leaves at every Joint, which are deeply cut and jagged, and armed with sharp Spines on their Edges; these are green on their upper Surface and white underneath. The Stalks divide towards the Top into Two or Three small Branches, which are garnished with Leaves of the same Shape, but are smaller than those upon the main Stem. Each of these Stalks is terminated by a globular Head of Flowers, which are of a fine blue Colour. The Heads are composed of many Hermaphrodite Flowers, each having a distinct scaly Empalement, as is represented at *a*. These are cut into many Segments at the Top, as is shewn at *b*; each of these sit upon an Embrio, which afterward becomes an oblong Seed, shewn at *c*; which in dry Seasons ripen very well in *England*. This Plant flowers in *July* and *August*, and the Seeds ripen in Autumn.

PLATE CXXXI.

Elichrysum, *Tourn. Inst. R. H.* 452. *Raii Meth. Plant.* 34. *Gnaphalium, Lin. Gen. Pl.* 850. Eternal Flower, or Golden Cassidony.

THIS Genus of Plants is ranged in the second Section of *Tournefort*'s Twelfth Class, intituled, *Herbs with a flosculous Flower and a downy Seed.* Mr. *Ray* places it in the Second Section of his Seventh Class, which he titles, *Herbs with a naked discoide Flower and downy Seed.* Doctor *Linnæus* ranges it in the Second Division of his Nineteenth Class, intituled, *Syngenesia Polygamia superflua.* The Flowers being composed of Hermaphrodite and Female Florets, and the Stamina and Summits being joined in a cylindrical Body.

The Species here represented are,

Fig. 1. Elichrysum *Africanus frutescens angustis & longioribus foliis incanis, Hort. Amst.* 2. 109. Shrubby *African* Eternal Flower with narrow and longer Leaves, which are hoary.

Doctor *Linnæus* supposes this is the same Plant as the *Elichrysum Orientale, C. B. P.* 264. but those who have seen both Sorts growing, can never doubt of their being distinct Species: For the Oriental Sort never rises with Stalks, but shoots out many Heads near the Ground; whereas this Sort rises with Stalks Four or Five Feet high, dividing into many Branches, which are garnished with long narrow Leaves placed alternately; but the other hath Spear-shaped Leaves, growing in Clusters without Order. The Flowers of this grow in a loose Corymbus, having long Pedicles; but those of the other grow compact.

The Root of this Plant is composed of many ligneous Fibres, from which the shrubby, round Stalk arises, which is white and woolly; it rises to Four or Five Feet high, which divides into several Branches, garnished with long narrow white Leaves growing close to the Branches, without any Footstalk, and are generally reflexed backward. The Branches are terminated by a Corymbus of Flowers, each Flower being composed of several Hermaphrodite Florets, One of which is represented at *e*; these are all included in One common scaly Empalement represented at *a*. The Florets expand at the Top, where they are slightly cut into Five Segments, as are represented at *b* and *c*; these are white and silvery on their Outside, but within are yellow; they appear all the Summer, and sometimes perfect their Seeds.

Fig.

Fig. 2. ELICHRYSUM *foliis linearibus decurrentibus subtus incanis floribus Corymbosis.* Eternal Flower, with narrow running Leaves hoary on their under Side, and Flowers growing in a Corymbus.

This Plant was raised in the *Chelsea* Garden, from Seeds which came from the *Cape of Good Hope.* It hath a Root, composed of many Fibres, from which arise many irregular Stalks which divide into many Branches; these are garnished with oblong Leaves, green on their upper Side, but white underneath; and from each there runs a Border or Wing along the Stalk from one to the other, so as to form what the former Botanists termed a winged Stalk, but Doctor *Linnæus* stiles these running Leaves. The Top of each Stalk is terminated by a compound Corymbus of Flowers composed of many small ones, which are each composed of many small yellow Flowers growing very compact. These continue in Succession most Part of Summer, and perfect their Seeds in the Autumn.

Both these Sorts require Protection from Frost in Winter, and are easily propagated by Cuttings during any of the Summer Months.

PLATE CXXXII.

EMERUS, *Cæsalp.* 117. *Tourn. Inst.* 650. *Tab.* 418. *Colutea Scorpioides, Raii Meth.* 163. *Coronilla, Lin. Gen. Plant* 789. Scorpion Sena.

TOURNEFORT ranges this Genus of Plants in the Third Section of his Twenty-second Class, intituled, *Trees and Shrubs with a papilionaceous Flower whose Leaves are conjugated, having many small Leaves ranged along the Midrib.* This should properly have been included in his Tenth Class, with the other papilionaceous Plants; but he has separated the Trees and Shrubs of this Class from the Herbs, and placed them in his last Class; in which he has been followed by Mr. *Ray.* Doctor *Linnæus* ranges it in his Seventeenth Class of Plants, intituled, *Diadelphia Decandria,* the Flowers have Ten Stamina joined in Two Bodies, and he puts it under the Genus of *Coronilla*; to which he also joins the *Securidaca* of *Tournefort.*

The Species here represented are,

Fig. 1. EMERUS *Cæsalp.* 117. Scorpion Sena.

This is a low Shrub, which seldom grows more than Four Feet high, putting out many Stems from the Root; these, when young, are green and smooth, but as they become older they have an Ash-coloured Bark, which is rough; they are garnished their whole Length with winged Leaves, composed of Four Pair of small Leaves placed along the Midrib opposite, and terminated by an odd one: These Leaves are obtuse, and indented at their Extremities. The Flowers are produced at the Wings of the Leaves, generally Two upon each Footstalk, which is often longer than the Leaves. These have a short Empalement of One Leaf, represented at *a.* The Flower is of the Butterfly Kind, as is shewn at *b.* This is composed of a Standard (or Vexillum) which is Heart-shaped, represented at *c.* The (Alæ, or) Wings are shewn at *d.* And the (Carina, or) Keel, at *e.* These Flowers are yellow, and make their Appearance in *May*; but there is usually a Succession of them till Autumn. They are succeeded by long taper Pods, represented at *f*; which ripen their Seeds in Autumn.

Fig. 2. EMERUS *minor, Tourn. Inst. R. H.* 650. Smaller Scorpion Sena.

This Sort is the most common in the *English* Gardens, the First being in very few; nor was it known of late Years here, till I procured the Seeds from *Italy.* This Second Sort rises to a greater Height than the First, but the Flowers are smaller. The Leaves generally have One Pair of small Leaves more upon each Midrib, but they are narrower, and end in a Point; so that there can be no Doubt of their being distinct Species, especially as they continue their Difference when raised from Seeds.

PLATE CXXXIII.

Epimedium, *Dod.* 599. *Tourn. Inst. R. H.* 232. *Raii Meth. Plant.* 129. *Lin. Gen. Plant.* 138. Barrenwort.

THIS Genus of Plants is ranged in the Sixth Section of *Tournefort*'s Fifth Class, intituled, *Herbs with a Cross-shaped Flower, whose Pointal turns to a Pod with One Cell.* Mr. *Ray* places it in his Twenty-fifth Class, which contains several Genera that he knew not where to range. Doctor *Linnæus* ranges it in the First Section of his Fourth Class, intituled, *Tetrandria Monogynia*; from the Flower having Four Stamina and One Style. We have but One Species of this Plant in *Europe*, which is here represented; *viz.*

Epimedium, *Dod. Pempt.* 599. Barrenwort. *John Bauhin* titles it, *Epimedium quorundam, Hist.* 2. 395.

This Plant hath a creeping Root, whereby it spreads and propagates very fast, sending many strong Fibres down into the Ground; and upward arise many small, stiff, smooth Footstalks, about Nine Inches high, divided toward the Top into Three smaller Sprigs or Stalks; each of which is again divided into other Three; upon each of these smaller Footstalks stands a stiff Heart-shaped Leaf, pointed at the End, and indented on the Edges; of a pale Green on the upper Side, but Grey underneath; and full of Nerves. A little below the First Division of the Footstalk, comes out the Footstalk of the Flowers, which is near Six Inches long, dividing into several smaller, each having Three Flowers, One upon each of the least Footstalks, at the Extremity. The Flower is composed of Four Leaves, placed in Form of a Cross as is represented at *a*. These are of a reddish Colour, with a yellowish Stripe on the Border. They are hollow at first, and shaped like a Pipe, as is represented at *b*. The Empalement of the Flower is composed of Four Green Leaves, represented at *c*; which are situated directly under the Petals, and closely adhere to them, so that a negligent Observer would suppose them One. In the Center of the Flower arises the Pointal *d*; which afterward turns to a Pod, having Two Valves, as is represented at *e*, containing several small Seeds.

This Plant grows naturally upon the Mountains in *Austria* and *Liguria*. Mr. *Ray* found it growing near *Ponteba*, which parts the *Austrian* and *Venetian* Territories. It flowers in *April*, and the Seeds ripen the Beginning of *June*, when they are soon cast out of the Pods. It delights in a moist shady Situation, and increases fast by its creeping Roots. For the remarkable Oddness of the Flower, it deserves a Place in Gardens.

Doctor *Tournefort* found Two other Varieties of this Plant in the *Levant*; one with a greenish white, and the other a pure white Flower; but as these only differ in the Colour of their Flowers, so they are esteemed as seminal Variations.

There have been great Doubts amongst Botanists concerning the *Epimedium* of *Dioscorides* and *Pliny*; some have supposed it to be the same with this which is here represented, but others take it to be a different Plant.

PLATE CXXXIV.

Fabago, *Tourn. Inst.* 258. *Tab.* 135. *Capparis Fabago Raii addend.* 192. *Zygophyllum, Lin. Gen. Plant.* 474. Bean Caper.

THIS Genus of Plants is ranged in the Fourth Section of *Tournefort*'s Sixth Class, intituled, *Herbs with a Rose Flower, whose Pointal turns to a Fruit with many Husks.* Doctor *Linnæus* ranges it in the First Section of his Tenth Class, intituled, *Decandria Monogynia*, the Flowers having Ten Stamina, and One Style.

The Species here represented is,

Fabago *Belgarum, sive Peplus Parisiensium Lugd.* 456. The Bean Caper. This is the *Capparis Portulacæ folio. C. B. P.* 480. Caper with a Purslain Leaf; and the *Capparis Fabago, Dod. Pempt.* 741. Bean Caper. Doctor *Linnæus* titles it, *Zygophyllum, Capsulis prismatico pentaedris. Hort. Upsal.* 103. Zygophyllum, with a five-cornered prismatick Seed Vessel.

This Plant hath a thick, long, perennial Root, which is covered with a brown Skin, and, as it advances in Age, becomes more ligneous; and the Head of the Root rises higher out of the Ground, by the Falling off of its annual Shoots, for the new Shoots come out above the Part where those of the former Year were placed. From the upper Part of the Root arise several firm, round, smooth-jointed Stalks, which divide into Branches of the same Form; these are garnished with Leaves at every Joint, whose Footstalks are placed opposite, and are about an Inch long; each sustaining Two oval Lobes (or small Leaves), which are succulent, like those of Purslain, and of a Sea-green Colour; the Leaves which grow on the lower Part of the Stalk and Branches being much larger than those on the upper. From the Wings of the Leaves come out the Footstalks of the Flowers, which sometimes are single, and at others are double, One on each Side the Branches; each sustaining a single Flower, having an Empalement composed of Five concave Leaves, represented at *a*. The Flower hath Five concave Petals, which are much larger than the Empalement, as is represented at *b*; in the Middle of which arise the Ten Stamina, surrounding the Style, as is shewn at *c*; which are stretched out much beyond the Petals, and are

are terminated by oblong Summits lying proſtrate, as is repreſented at *d*. After the Flower is fallen; the Pointal becomes an oblong, five-cornered, fleſhy Capſule, having Five Cells, which have Valves, and are divided by an intermediate Partition, each incloſing Two or Three roundiſh compreſſed Seeds. In the Autumn the Branches decay and fall off, leaving the ſtumpy Root naked, which puts out new Shoots in the Spring. In warm Years this Plant will perfect Seeds very well in *England*.

It grows naturally in *Syria*. I have frequently received the Seeds from *Smyrna* and *Aleppo*. Some have mentioned this to grow wild in *Italy*; but Mr. *Ray* could not find it there. The Root of this Plant is of a long Duration; there is at preſent one growing in the *Chelſea* Garden, which is more than Forty Years old, and is yet very vigorous, putting out many Stems every Year; and, in warm Seaſons, produces many good Seeds. It requires a dry lean Soil, and a warm Situation. If theſe Roots are planted in Lime Rubbiſh, they will not grow ſo vigorouſly as in good Ground, ſo will better endure the Winter's Cold; for, when they are full of Juice, the Froſt often deſtroys them. The *Syrian* Name of this Plant is *Morgſani*

PLATE CXXXV.

Filago, *Lin. Gen. Plant.* 891. *Gnaphalium, Tourn. Inſt. R. H.* 461. *Tab.* 261. *Gnaphalium maritimum, Raii Meth. Plant.* 38. Cottenweed, or Cudweed.

THIS Genus of Plants is ranged in the Fourth Section of *Linnæus*'s Nineteenth Claſs, intituled, *Syngeneſia Polygamia neceſſaria*. The Flowers of this being compoſed of ſeveral Female and Hermaphrodite Florets included in One common Empalement, and the Stamina and Style coaleſce in the Hermaphrodite Florets. *Tournefort* places it in the Third Section of his Twelfth Claſs, which includes thoſe Plants which have floſculous Flowers, and Seeds without Down. Mr. *Ray* ranges it in his Eighth Claſs, which contains the Corymbiferous Plants with a naked Flower.

The Species here repreſented is,

Filago *tomentoſa, Corymbo ſubramoſo, foliis oblongis obtuſis crenatis, Lin. Sp. Plant.* 927. Woolly Cudweed, branching under the Flower-Heads, and oblong blunt Leaves, which are crenated. This is the *Gnaphalium maritimum*, Sea Cudweed, *C. B. P.* 263. and the *Chryſanthemum perenne Gnaphaloides maritimum, Mor. Hiſt.* 3. *p.* 81. Perennial maritime Chryſanthemum, like Cudweed. In the *Hortus Cliffortianus* it is titled, *Santolina corymbo terminali ſubdiviſo foliis oblongis integerrimis obtuſis.* 398. Lavender Cotton, with a Flower-Head terminating the Diviſion of the Branches, and oblong blunt intire Leaves.

It hath a ligneous Root, ſending out many Fibres, which ſpread near the Surface of the Ground; from which come out ſeveral hard Stalks, which trail upon the Ground, and ſend out on every Side many ſmall Branches, which are cloſely garniſhed with oblong blunt Leaves, crenated on their Edges, ſet cloſe to the Branches without any Footſtalks; theſe are covered over with a cottony Down extremely white. The Flowers are produced toward the End of the Branches, upon ſhort Footſtalks, as is repreſented at *g* and *h*. Theſe are compoſed of ſeveral Florets collected in a Sort of Corymbus, and included in one common ſcaly Empalement, as is repreſented at *a*. The Florets are Funnel-ſhaped, and divided at the Top into Five Segments which ſpread open, as is ſhewn at *b*. Theſe ſit upon the Germen *c*, ſituated between the Gutter-ſhaped Leaf *d*. The Germen afterward becomes a ſmall, oval, ſmooth, compreſſed Seed, as is repreſented at *e*; which hath no Down adhering to it, but is covered by a Hood marked *f*. The Florets are of a bright yellow Colour, which, with the extreme Whiteneſs of the Leaves and Branches make a pretty Appearance.

It flowers in *June*, *July*, and *Auguſt*; and in warm dry Seaſons, the Seeds will ripen in *September*; but if much Wet happens when the Flowers open, the Seeds prove abortive.

This Plant grows naturally in great Plenty on the Borders of the *Mediterranean* Sea; and alſo in *Angleſea*, and on the Shore in *Cornwall*; from both which Places I have received the Seeds. It is a perennial Plant, and will live abroad in mild Winters without Shelter, provided it is planted in a gravelly dry Soil; but in good Ground it is apt to grow rank in the Summer, and then the Froſt ſoon deſtroys it.

PLATE



EPIMEDIUM Dod. pempt. 599.

Lancake del. — J. Miller sculp.

Publish'd according to Act of Parliament by P. Miller Jan. 1757



FABAGO, *Belgarum, sive Peplus Parisiensium. Lugd. 450*

J. Lapeake delin *Publish'd According to Act of Parliament by P. Miller January the 1st 175* *J. Miller Sculp.*



FILAGO *tomentosa corymbo subramoso, foliis oblongis obtusis crenatis Lin. Sp. pl. 927.*

[illegible] del. *J. Miller sculp.*

Published according to Act of Parliament by P. Miller Jan.ʸ 30 1757.

Pl. C XXXVI



Fig. 1 FUMARIA siliquis linearibus tetragonis caulibus diffusis scandentibus Lin. Sp. plant 700
Fig. 2 FUMARIA pericarpiis monospermis racemosis caule diffuso Lin. Sp. plant 700

R. Lancake del. — Publish'd according to Act of Parliament by P. Miller Jan'y 30 1757 — Sculp.

Fumatory



Publish'd according to Act of Parliament by P. Miller ... 1757

Goats rue



GENISTA *ramis triquetris subarticulatis foliis tricuspidatis Lin. Sp. pl. 910.*

R. Lancake del. J. Miller sculp.

Publish'd according to Act of Parliament by P. Miller Jan.ry 30. 1757.

PLATE CXXXVI.

FUMARIA, *Tourn. Inst. R. H.* 421. *Tab.* 237. *Raii Meth. Plant.* 130. *Lin. Gen. Plant.* 760. Fumitory, in *French, Fumeterre.*

THIS Genus of Plants is by *Tournefort* ranged in the First Section of his Eleventh Class, which includes the Herbs with a polypetalous anomolous Flower, whose Pointal turns to a unicapsular Fruit. Mr. *Ray* places it in his Twenty-fifth Class, which contains the anomolous Plants he knew not where to range. *Linnæus* puts it in the First Section of his Seventeenth Class, intituled, *Diadelphia Hexandria*; the Flowers having Six Stamina, which are separated in Two Bodies; and he joins to this Genus the *Capnoides* of *Tournefort*, the *Cysticapnos* of *Boerhaave*, the *Corydalis* of *Dillenius*, and the *Cucularia* of *Jussieu*,

The Species here represented are,

Fig. 1. FUMARIA, *siliquis linearibus tetragonis, caulibus diffusis acutangulis, Lin. Sp. Plant.* 700. Fumitory with narrow Pods having Four Angles, and diffused Stalks with sharp Angles. This is the *Fumaria lutea, C. B. P.* 143. Yellow Fumitory; and the *Fumaria lutea montana, Dalech. Hist.* 1294. Mountain Yellow Fumitory.

This Plant hath a perennial Root composed of many fleshy yellow Fibres, which strike deep into the Ground; from which there arises a great Number of succulent Stalks, which spread and branch out upward in a diffused Manner, and grow about Six Inches high. These are garnished with compound Leaves standing on long branching Footstalks; and are composed of many irregular Lobes (or small Leaves) which are indented at the Top into Three Parts. From the Divisions of the Stalks come out the Footstalk of the Flower, which is naked and taller than the Leaves, supporting Eight or Nine irregular lipp'd Flowers growing in a loose Spike, which are of a bright yellow Colour. *a* represents the upper Lip or Standard; *b*, the lower Lip or Beard, ending in a Tail *c*; between these Lips (as it were in the Palate of a Mouth) the Stamina are situated, surrounding the Pointal *e*; which afterward becomes a Pod, as at *d*, containing several small Seeds.

The Leaves of this Plant continue green all the Year, and the Flowers continue in Succession most Part of the Year, so that the Plants are seldom destitute of Flowers, which renders them worthy of a Place in a Garden. The Seeds of this Plant are frequently cast out, by the Elasticity of the Pod when ripe, to a considerable Height; and, when they happen to grow near Walls, they fall on the Joints of the Wall, and the Plant will grow in the Morter, where they will resist the Injuries of Weather, and multiply exceedingly; therefore this is a very proper Plant to grow in Rock-work, or upon old Walls or Buildings, to hide their Deformity.

Fig. 2. FUMARIA *pericarpiis monospermis racemosis, caule diffuso, Lin. Gen. Plant.* 700. Fumitory with a single Seed in each Pod growing in a Racemus, and a diffused Stalk. This is the *Fumaria officinarum & Dioscoridis, C. B. P.* 143: Common Fumitory.

This is an annual Plant, which grows naturally on arable Land in most Parts of *England.* It hath long, slender, fibrous Roots, sending out many angular Stalks, which are weak, and generally trail upon the Ground; the lower Leaves grow upon long, broad, and angular Footstalks, are deeply divided almost after the Manner of the umbelliferous Plants, and are placed alternately on the Stalks. The Flowers are produced in loose Spikes at the Extremity of the Branches, which are slender, and shaped like those of the other Sort, as are represented at *k*, but are of a purple Colour. These are succeeded by round Seed Vessels, containing a single Seed, represented at *i*. This Sort comes early to flower in the Spring; and there is generally a Succession of young Plants, which continue flowering great Part of Summer.

It is used in Medicine, and is reckoned to be a great Cleanser of the Blood. Doctor *Boerhaave* frequently prescribed the Juice of this Plant for the Jaundice and bilious Colicks.

PLATE CXXXVII.

GALEGA, *Tourn. Inst. R. H.* 398. *Tab.* 222. *Raii Meth. Addend.* 192. *Lin. Gen. Plant.* 770. Goats Rue.

THIS Genus of Plants is ranged in the Second Section of *Tournefort*'s Tenth Class, which includes the Herbs with a Butterfly Flower, whose Pointal turns to a long Pod with One Cell. Doctor *Linnæus* places it in the Second Section of his Seventeenth Class, intituled, *Diadelphia Decandria*, the Flower having Ten Stamina; Nine of which are joined, and the other is separated.

The Species here represented is,

GALEGA, *Hort. Cliff.* 362. *Lin. Sp. Plant.* 714. Goats Rue. This is the *Galega vulgaris, C. B. P.* 352. Common Goats Rue.

There are Two Varieties of this Plant, one with a white, and the other a blue Flower, which frequently arise from the same Seeds, so are indifferently used in Medicine. But there is another Sort with larger Flowers and thicker Pods, which came originally from *Africa*, and is preserved in many Botanic Gardens. The

The Sort here represented grows naturally in *Italy* and *Spain*; but is propagated in the *English* Gardens to supply the Markets for medicinal Use.

It hath strong, thick, fibrous Roots which spread out on every Side, and strike deep into the Ground; from which arise several round Stalks, which are about Two Feet high, sending out many Branches; these are garnished with winged Leaves at every Joint, which are composed of several Pairs of Lobes, and terminated by an odd one. The Flowers grow in Spikes upon naked Footstalks, which arise from the Wings of the Leaves, in the same Manner as the spiked *Vetch*. These are of the Butterfly Kind, as are represented at *a*; consisting of a Standard *b*, and Two Wings represented at *c*. The Keel, which is shewn at *d*, out of the Empalement, arises the Ten Stamina; Nine of which are joined, as at *e*, and One is separated, as is represented at *f*; from the same Empalement *g*, arises the Pointal; which afterward turns to a long, slender, upright Pod, marked *h*, containing several Kidney-shaped Seeds, represented at *i*.

This Plant is celebrated as an Alexipharmick and Sudorifick, remarkably discussing any thing pestilential or poisonous. Mr. *Boyle*, in his Treatise of the *Wholesomeness and Unwholesomeness of the Air*, bestows Three or Four Pages in celebrating the Virtues of *Goats Rue* in pestilential and malignant Diseases, from his own Observation and Experience.

It is a perennial Plant which continues several Years, but the Stalks decay every Autumn, and new ones arise in the Spring; it flowers in *June*, and the Seeds ripen in *August*.

PLATE CXXXVIII.

GENISTA, *Lin. Gen. Plant.* 766. *Cytiso-Genista, Tourn. Inst* 649. Broom.

THIS Genus of Plants is ranged in the Second Section of *Linnæus*'s Seventeenth Class, intituled, *Diadelphia Decandria*, the Flower having Ten Stamina; Nine of which are joined, and one stands separate. *Tournefort* places it in his Twenty-Second Class, though it would more properly come under his Tenth, with the other papilionaceous Plants; but he has separated all the Trees and Shrubs of this Class from the Herbs. He has titled this Genus *Cytiso-Genista*, because the Leaves are in some Places single, and in others they are trifoliate.

The Species here represented is,

GENISTA *ramis triquetris subarticulatis, foliis tricuspidatis, Lin. Sp. Plant.* 710. Broom with Three-cornered Branches which are jointed below, and Leaves ending in Three Points. This is the *Cytiso-Genista Lusitanica magno flore, Tourn. Inst.* 649. *Portugal* Broom with a large Flower.

This Plant grows naturally in *Portugal*, from whence I have several times received the Seeds. It hath slender pliant Branches, as is represented at *a*, which are generally Three-cornered; and are garnished with Leaves coming out by Threes, as in the Trefoils, and sometimes single; those which terminate the Branches end in Three Points, as is represented at *b*. The Branches of this Sort spread and turn downward; whereas those of our common Broom grow erect, and closer together. The Flowers come out singly from the Wings of the Leaves, on short Footstalks, which are yellow, and are of the papilionaceous (or Butterfly kind), having a short Empalement cut into Five Parts, as is represented at *c*, out of which arises the Pointal *d*. The large Standard (or Vexillum) is marked *e*; the Two Wings *f*, and the Keel *g*. The Ten Stamina are shewn at *h*. The Pointal *d*, afterward turns to a Pod at *i*, which contains many Kidney-shaped Seeds. It flowers in the End of *April* and Beginning of *May*, and the Seeds ripen in *July*.

This Shrub grows to the Height of Six or Seven Feet, sending out many Branches, so as to form a large spreading Head; and the Branches being fully garnished with Flowers in every Part, makes a fine Appearance during their Continuance; it therefore deserves to have a Place among other flowering Shrubs of the same Growth. It is very hardy, and propagates easily by Seeds.

PLATE CXXXIX.

Gallium, *Tourn. Inst. R. H.* 113. *Tab.* 39. *Lin. Gen. Plant.* 117. Cheese-runnet, or Ladies Bedstraw; in *French, Caillelait.*

This Genus of Plants is ranged in the Ninth Section of *Tournefort's* First Class, which includes the *Herbs with a Bell-shaped Flower of One Leaf, whose Empalement becomes a double or Twin Fruit. Linnæus* places it in the First Section of his Fourth Class, intituled, *Tetrandria Monogynia*, the Flowers having Four Stamina and one Style.

The Species here represented is,

Fig. 1. Gallium *foliis octonis linearibus sulcatis, ramis floriferis brevibus, Hort. Cliff.* 34. Ladies Bedstraw, with Eight narrow furrowed Leaves, and shorter Flower Branches. This is the *Gallium caule erecto, foliis plurimis verticillatis linearibus, Lin. Flor. Lap.* 61. Ladies Bedstraw with an upright Stalk, and many narrow Leaves growing in Whorles.

This Plant hath a perennial Root, which creeps in the Ground, and is very tough; the Stalks are between Three and Four Feet long, growing erect till the Seeds are formed, which by their Weight often cause them to incline downward: These are garnished at the Joints with very narrow Leaves, having a Furrow in the Middle, which for the most Part are Eight, standing together in Whorles round the Stalks, as is represented at *A*. They are of a lucid Green, and terminate in Points. At each Joint come out Two Side Branches, the lower Part of which are garnished with the same Kind of Leaves, but are terminated by loose Spikes of yellow Flowers, as is represented at *B*; each Flower is divided into Four Parts, as is shewn at *a*. These have an Empalement of One Leaf, cut into Four Segments, as at *b*; which afterward becomes a dry Fruit, composed of Two Seeds, as is shewn at *c*; and, when separated, are shaped like a Half Moon, as is shewn at *d*: And *e* represents the Germen, which is situated below the Empalement.

The Plant here represented is the common *Gallium luteum* of *Bauhinus*, and other *German* Writers on Botany; but I am in Doubt of its being the same with that which grows naturally in *England*: For this hath much firmer Stalks, which are not so hairy, and rises to double the Height, in the Garden where they grow in the same Soil and Situation, and have continued so for Three Years; which is the whole Time I have had this Sort growing, which I raised from Seeds sent me from *Germany*: So that I suspect, the Foreign Titles of Plants are very often improperly applied to those of our own Growth, believing that their common Plants are the same with ours.

The *yellow Ladies Bedstraw* is used in Medicine, and is esteemed good for stopping of Fluxes and Hæmorrhages; some commend a Decoction of the Herb for the Gout. In *Cheshire*, the People use it in their Runnet for making of Cheese; from whence it had the Appellation of *Cheese-runnet*. It flowers in *July*.

Fig. 2. Gentiana, *Tourn. Inst. R. H.* 80. *Tab.* 40. *Lin. Gen. Plant.* 285. Gentian, or Felwort; in *French, Gentiane.*

This Genus of Plants is ranged in the Third Section of *Tournefort's* First Class, which includes the *Herbs with a Bell-shaped Flower of One Leaf, whose Pointal becomes a dry Capsule, which in some have but One, and others have many Cells. Linnæus* places it in the Second Section of his Fifth Class, intituled, *Pentandria Digynia*, from the Flower having Five Stamina and Two Styles.

The Species here represented is,

Gentiana *corollis quinquefidis rotatis, verticillatis, calycibus spathaceis, Hall. Helv.* 479. Gentian with a quinquefid Petal, growing in Whorles about the Stalk, and a hooded Empalement. This is the *Gentiana major lutea, C. B. P.* 187. Greater yellow Gentian, or Felwort.

This Plant hath a large thick Root of a yellowish brown Colour, and a very bitter Taste; the lower Leaves are of an oblong oval Shape, a little pointed at the End, stiff, of a yellowish Green, and have Five large Veins on the Back of each. The Stalk rises to the Height of Three or Four Feet, which is garnished with Leaves, growing by Pairs at each Joint, almost embracing the Stalk at their Base; these are of the same Form with the lower, but diminish gradually in their Size to the Top. The Flowers come out in Whorles at the Joints, toward the upper Part of the Stalks, standing on short Footstalks, whose Origin is from the Wings of the Leaves; these are of a pale Yellow, are of One Leaf, which is divided almost to the Bottom, as is represented at *a*; having an oblong cylindrical Germen, which is shewn at *d*; which afterward swells to an oblong taper Capsule, which is bifid at the Point, as is represented at *e*; which opens in Two Cells, as at *f*, filled with small Seeds, represented at *g*. The Figures *b* and *c* shew the first Appearance of the Flowers magnified.

This Plant grows naturally in the Pastures in *Switzerland*, and in the mountainous Parts of *Germany*, from whence the Roots are brought to *England* for medicinal Use; there is a compound Water, and an Extract made of them. The Root of the *Gentian* is also One of the principal Ingredients in Bitters; and is frequently used in many Disorders.

But a few Years ago, there was a Mixture of *Henbane* Roots brought over with *Gentian*, which was unhappily used, and occasioned great Disorders in the Persons to whom it was administered; upon which, great Enquiry was then made to find out what that Root could be; some suspecting it to be the Root of *Deadly Nightshade*, and others believing it to be some of the poisonous umbelliferous Roots; but on comparing it with some dried Roots of the *Henbane*, I found they were the same. We have likewise an Account of the noxious Quality of these Roots, printed in the *Synopsis Stirpium Hibernicarum*, which was communicated to the author by Doctor *Thomas Molyneux*, Physician to the State. It was as follows:

The Dean of *Clonfert* was making some Alterations in his Garden; and, looking over his Workmen, he observed them to dig up many Roots, which he took for *Skirrets*, and therefore ordered some of them to be carried in and dressed for Dinner; which was accordingly done; but all those who eat of them were in a short time seized with Dizziness in their Head, Sickness at the Stomach, attended with an unusual Heat and Driness in their Throats; and Two, who had eaten a larger Share than the rest, lost the Use of their Reason and became delirious, which continued for some Days. And as it appeared evident, these Disorders were occasioned by the Roots, so the Dean caused some of them to be planted, that he might be assured what the Plant was, whose Roots had this bad Quality; and in the Spring, when they put out their Leaves, they proved to be the *Henbane*, which has been noticed by old Writers to be possessed of these Qualities. And as the Disorders which were occasioned by these supposed *Gentian* Roots, were nearly the same, as is above related, so I thought it might be of Use to insert it here, to caution others against eating of Roots which they are unacquainted with.

PLATE CXL.

Geranium, *Lin. Gen. Plant.* 746. *Tourn. Inst. R. H.* 266. *Tab.* 142. Cranesbill; in *French, Bec de Grue.*

THIS Genus of Plants is ranged in the Second Section of *Linnæus's* Sixteenth Class, intituled, *Monodelphia Decandria*; the Flowers of this Class have the Stamina joined at their Base to a hollow Column, and those of this Section have Ten distinct Stamina at the Top. *Tournefort* places it in the Sixth Section of his Sixth Class, which includes the *Herbs with a Rose Flower, whose Pointal turns to a Fruit composed of many Cells.*

The Characters of this Genus are exhibited in *The Gardeners Dictionary.*

The Species here represented is,

Geranium *calycibus monophyllis, foliis quinquelobis integerrimis glabris peltatis, Hort. Cliff.* 345. Cranesbill with an Empalement of One Leaf, and Leaves having Five Lobes, which are smooth, intire, and Target-shaped. This is the *Geranium Africanum foliis inferioribus asari, superioribus staphydis agriæ, maculatis splendentibus, & acetosæ sapore, Com. Rar. Pl.* 52. *African* Cranesbill with under Leaves like Asarabacca, upper Leaves like Staves-acre, which are resplendent, spotted, and taste like Sorrel.

This Plant hath a round, slender, branching Stalk, which requires some Support; this at first is Green, but afterward becomes Reddish; and, when older, turns to a dark Brown. The Joints are pretty far distant, sometimes Three or Four Inches; at each of these come out Three or Four Leaves, standing upon pretty long Footstalks, which are joined to the Middle of the Leaves, like those of the *Water Lily*, which resemble an antient Target. The Leaves have Five roundish Lobes, are thick, succulent, and of a lucid Green, being marked with a Spot in the Middle, and have an acid Taste: Toward the upper Part of the Branches come out the Footstalks of the Flowers, which are near six Inches long; sustaining at the Top Two, Three, Four, or Five Flowers, growing in a Sort of Umbel, each standing on a separate shorter Pedicle. These are composed of Five unequal Petals, represented at *b*; the Two upper being broader than the under, and are of an incarnate red Colour. These have an Empalement of One Leaf, divided into Five Parts almost to the Bottom, as is shewn at *c* and *d*; in the Center is situated the hollow Tube or Column, to which are joined the Ten Stamina, with the Style arising from the Middle, which is terminated by Five reflexed Stigmas, as is represented at *e*. The Empalement afterward becomes a Capsule inclosing Five Seeds, which have long Beaks joined together, as is shewn at *f*; when the Seeds are ripe they open at the Bottom, and continue joined to the Apex of the Style, as represented at *g*; and afterward, by the spiral Screw of the Beak, twist, as represented at *h*; when the Seeds are cast off by the Elasticity of the Screw to some Distance; and the Seeds, being the heavier Part, fall first to the Ground, and, by the turning of the Beak, are forced into the Ground. *a* represents the Leaf with its Five Lobes.

This Plant continues in Flower near Eight Months, therefore is worthy of a Place in every good Greenhouse. It is easily propagated by Cuttings during any of the Summer Months, and it frequently perfects Seeds here; but the other Method being the most expeditious, few Persons trouble themselves with sowing of the Seeds. It grows naturally at the *Cape of Good Hope*, and requires a good Greenhouse in Winter; but, in Summer, may be placed abroad in a sheltered Situation. If the Branches are properly supported, they will rise to the Height of Three or Four Feet.

PLATE CXLI.

Geum, *Tourn. Inst. R. H.* 251. *Tab.* 129. *Saxifraga, Lin. Gen. Plant.* 494. London Pride, or None-so-pretty.

THIS Genus of Plants is ranged in the Third Section of *Tournefort's* Sixth Class, which includes the *Herbs with a Rose Flower whose Pointal becomes a Fruit, for the most part bicapsular.* Doctor *Linnæus* has joined the Plants of this Genus to the Saxifrage, and ranges them in the Second Section of his Tenth Class, intituled *Decandria Digynia*, the Flowers having Ten Stamina and Two Styles.

The Characters are exhibited in *The Gardeners Dictionary*, under the Article of *Aretium.*

The Species here represented are,

Fig. 1. Geum *rotundifolium majus, Tourn. Inst. R. H.* 251. Greater round-leaved Geum, or spotted Sanicle. This is the *Saxifraga foliis caulinis reniformibus dentatis petiolatis, Lin. Sp. Plant.* 403. Saxifrage with Kidney-shaped Leaves on the Stalks, which are indented and stand on Footstalks. *Caspar Bauhin* titles it, *Sanicula montana rotundifolia major, Pin.* 243. Greater round-leaved Mountain Sanicle.

The lower Leaves of this Plant are almost round, resembling those of *Golden Saxifrage*, standing upon long Footstalks, and are deeply divided on their Borders; they are hairy and Green above, and pale on their under Side; the Stalks rise about a Foot high, which are hairy, and divide above into several small Branches, under each of these is placed a single Leaf; the Flowers are produced in loose Panicles at the End of the Branches: These are composed of five Petals which spread open, as is represented at *a*, which are White, and spotted with Red; in the Center is placed the Style, with Ten Stamina surrounding it; Five lying on the Middle of the Petals, and Five between, as is shewn at *b*; these have an Empalement of One Leaf, divided into Five Parts, represented at *c*; which is permanent and surrounds the Germen, and becomes a Fruit with Two Horns, represented at *d*; which swells to a Capsule, shewn at *e*, opening into Two Parts, as at *f*; having Two Cells, represented at *g*, which are filled with small Seeds, shewn at *h*.

This Plant grows naturally on the *Alps*, and other mountainous Places, but is preserved in Gardens for the Beauty of its Flowers, which appear in *May* and *June*. It must have a moist Soil and a shady Situation.

Fig. 2. Geum *folio subrotundo majori, pistillo floris rubro, Tourn. Inst. R. H.* 251. Geum with a larger roundish Leaf, and a Red Pointal. This is the *Sedum montanum serratum guttato flore, Park. Theat.* 738. Sawed Mountain Houseleek with a spotted Flower, commonly called *None-so-pretty*, or *London Pride.*

This



Fig. 1, GALIUM, *foliis Octonis linearibus sulcatis, ramis floriferis brevibus Hort. Cliff. 34.*
Fig. 2, GENTIANA, *corollis quinquefidis rotatus verticillatis calycibus spathaceis Hall. Helv. 479.*

R. Lancake delin. — J.S. Miller Sculpt.

Publish'd according to Act of Parliament by P. Miller Feb. 26. 1757.

heese-runnet. 8r.

Ladies Bedstraw



GERANIUM, *calycibus monophyllis, foliis quinquelobis integerrimis glabris peltatis* Hort. Cliff.

Publish'd according to Act of Parliament by P. Miller February 26 1756

Cranesbill

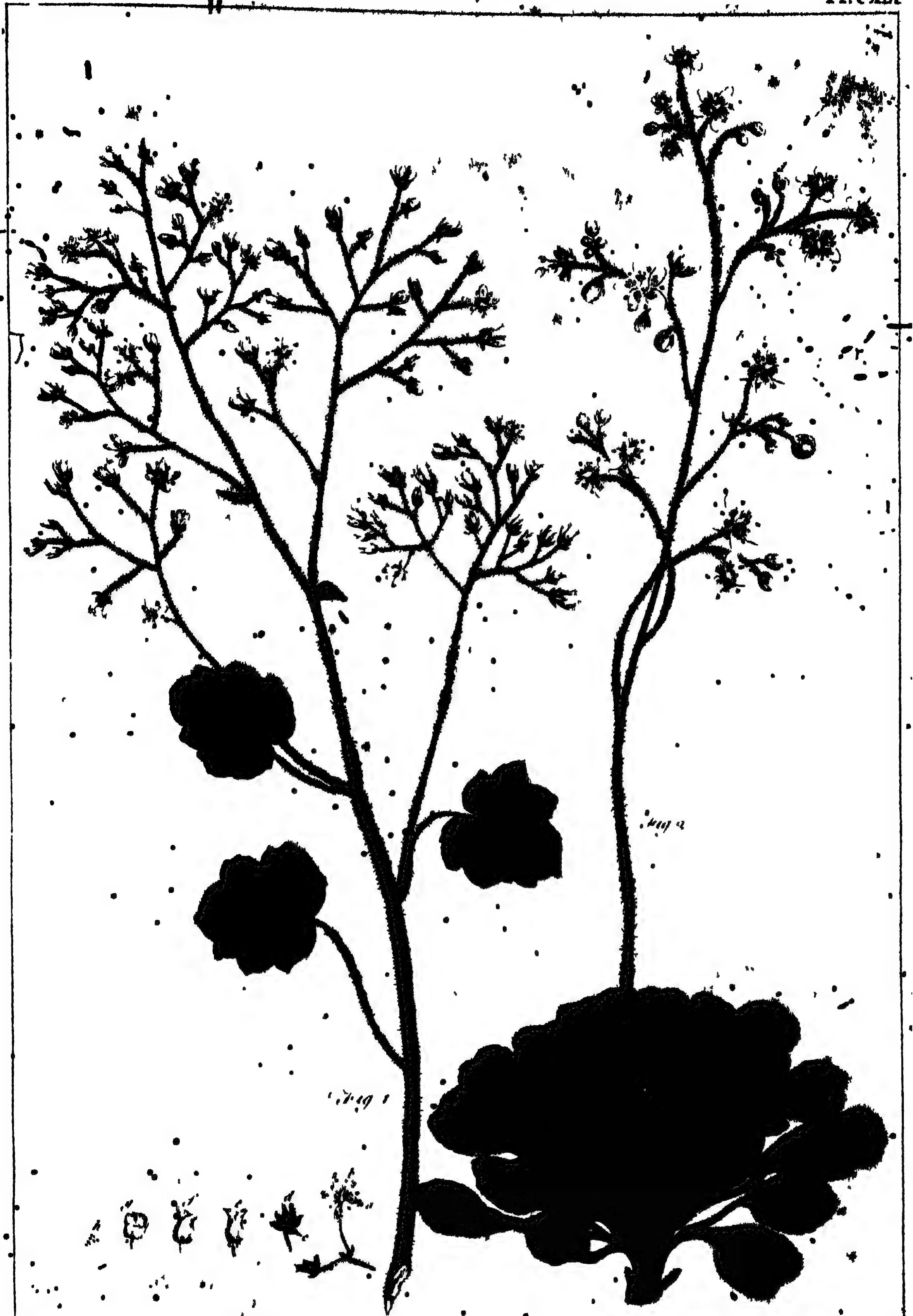


Fig. 1 GEUM, rotundifolium majus Tourn. Inst. R. H. 251

Fig. 2 GEUM, folio subrotundo majori, pistillo floris rubro Tourn. Inst. 251

R. Lancake delin.

Publish'd according to Act of Parliament by P. Miller February 21 17..

London Pride, or
none so pretty

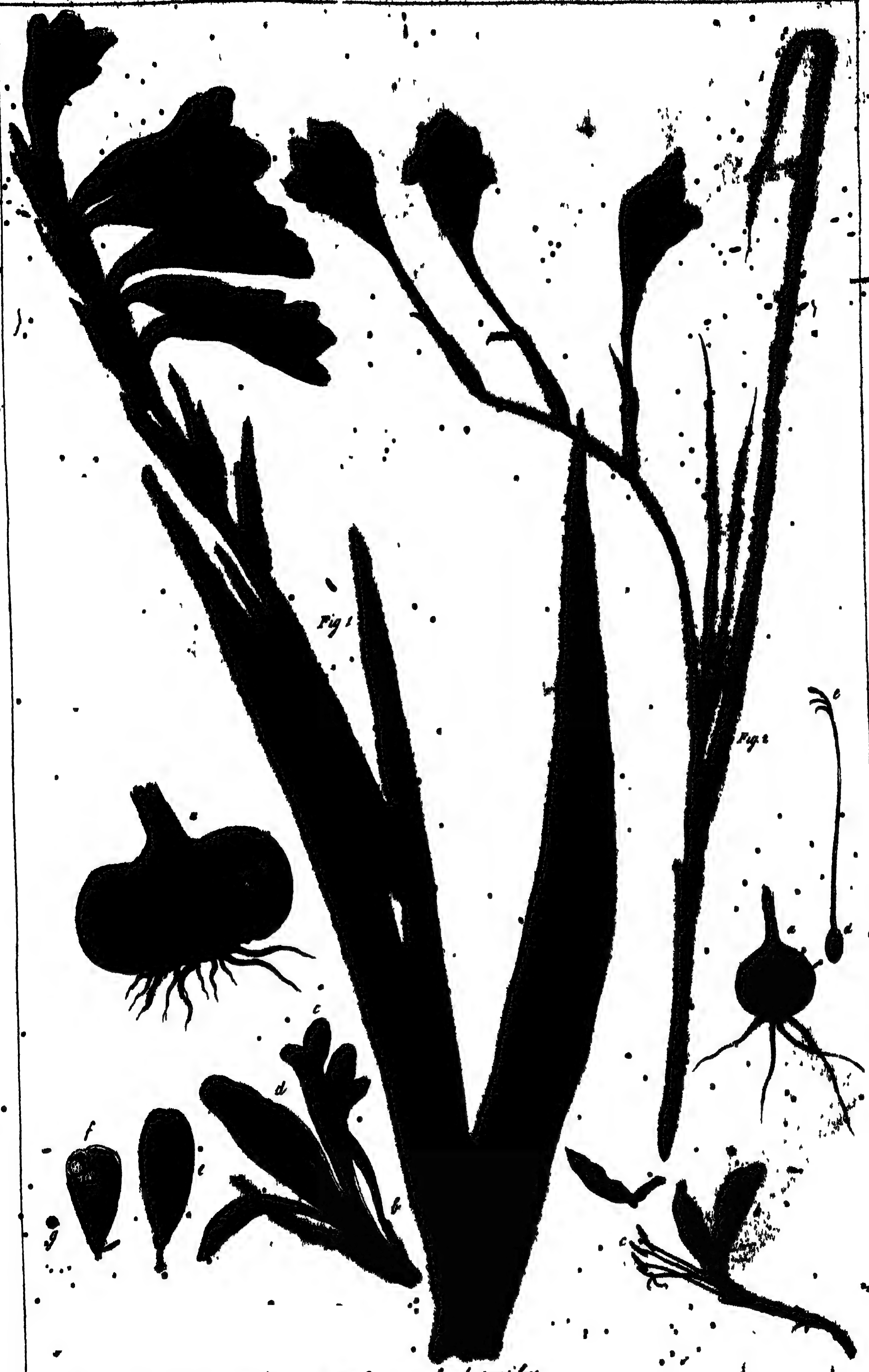


Fig. 1. GLADIOLUS *foliis ensiformibus, floribus majoribus distantibus*
Fig. 2. GLADIOLUS *foliis linearibus, floribus distantibus corollarum tubo limbus longiore Lin. Sp. plant. 37.*

R. Lancake. delin. — J. S. Miller Sculp.

Published according to Act of Parliament by P. Miller Feb 26 1757.

Cornflag



Published according to Act of Parliament by P. Miller, February 1757

Horned poppy



HELIOTROPIUM, *foliis ovato-lanceolatis, spicis plurimis confertis caule fruticoso.*

R. Lancake delin. | Publish'd according to Act of Parliament by P. Miller February 26 1757. | I. S. Miller Sculp.

Heliotrope, or Turnsole

This Sort grows naturally on a Mountain in the County of *Kerry* in *Ireland*, but has been long cultivated in the *English* Gardens.

This Plant sends out many Heads or Off-sets composed of flat roundish Leaves, spread open like a Rose, as at *a*; these continue Green all the Year. From the Center of the Heads arise slender, hairy, branching Stalks a Foot and a Half high, of a reddish Colour, dividing into many Branches toward the Top, which sustain loose Panicles of Flowers, composed of Five Petals, represented at *b*; which are of a pale Red, and marked with many bloody Spots toward their Base. These have Ten Stamina; Five spreading on the Petals, and Five lying between; they are of a Flesh Colour, and are terminated by round Summits. The Petals are at first closed into a round Head, as is represented at *d*, but afterward spread open like a Rose.

It flowers in *May* and *June*, at which time it makes a pretty Appearance. This requires a shady Situation, and propagates very fast by Off-sets.

PLATE CXLII.

Gladiolus, *Lin. Gen. Plant.* 55. *Tourn. Inst. R. H.* 365. *Tab.* 190. Cornflag, or, by some, Foxglove; in *French, Glaieul.*

THIS Genus of Plants is ranged in the First Section of *Linnæus*'s Third Class, intituled, *Triandria Monogynia*, the Flower having Three Stamina and One Style. *Tournefort* places it in the Second Section of his Ninth Class, which includes the *Herbs with a Lily Flower of One Leaf cut into Six Parts, whose Empalement becomes a Fruit.*

The Characters of this Genus are exhibited in the *Gardeners Dictionary.*

The Species here represented are,

Fig. 1. Gladiolus *foliis ensiformibus, floribus majoribus distantibus.* Cornflag with Sword-shaped Leaves, and larger Flowers standing distant. This is the *Gladiolus major Byzantinus, C. B. P.* 41. Greater Byzantine Cornflag.

This Plant hath a large bulbous Root, which is compressed and covered with a Russet Skin when dry, but is of an herbaceous Colour in the Summer when growing, and channelled, as is represented at *a*; from which arise long, flat, Sword-shaped Leaves, which are furrowed and inserted into one another, and embrace the Stalk, which comes out from between them: This rises about Three Feet high, and is terminated by Five or Six Flowers, which are above each other at Distances on one Side of the Stalk; each coming out of a Spatha, or Hood, represented at *b*, which dries and surrounds the Capsule after the Flower is past. The Flower consists of One Petal, being joined at the Bottom, but is cut into Six Parts, which are disposed somewhat like a Lip Flower; the upper Segment *d*, being much larger than the rest, which are situated below as at *c*; to the upper Lip, or Segment, are joined Three Stamina, which are terminated by long upright Summits; these are joined at their Base to the Style, which supports a trifid Stigma. The Germen, which is situated below the Flower, afterward becomes an oblong, swelling, blunt, three-cornered Capsule, marked *e*; which hath Three Cells, represented at *f*, and opens in Three Parts, being filled with roundish Seeds, as is shewn at *g*. The Colour of this Flower is a dark, deep Red, inclining to Purple; and, being large, makes a fine Appearance when fully blown. It flowers in *June*, and the Seeds ripen in *September*. This has been supposed only a Variety of the common Sort; but I have propagated both by Seeds, but have never found them vary, so that I am convinced they are distinct Species.

Fig. 2. Gladiolus *foliis linearibus floribus distantibus, corollarum tubo limbis longiore, Lin. Sp. Plant.* 37. Cornflag with narrow Leaves, Flowers growing distant, and the Tube of the Flower longer than the Border of the Petal. This is the *Gladiolus caule simplicissimo, foliis linearibus, floribus alternis. Prod. Leyd.* 19. Cornflag with a single Stalk, very narrow Leaves, and Flowers growing alternate.

This Sort grows naturally at the *Cape of Good Hope*, from whence I received the Seeds, which succeeded in the *Chelsea* Garden; where the Plants annually produce their beautiful Flowers.

It hath a round, smooth, bulbous Root, marked *a*; which is covered with a thin dark-coloured Skin, from which come out in the Autumn Two or Three very narrow grassy Leaves, folded over each other at their Base, but open flat above; these rise near Two Feet high. In the Spring of the Year arises a single Stalk from between the Leaves, about Two Feet long, which always bend on one Side, as is here represented in the Figure. Toward the upper Part of this come out Two or Three Flowers, ranged on one Side of the Stalk, standing upright, each having a narrow Spatha, or Hood, and long slender Tubes, which swell large upward; and are divided into Six Parts, which are nearly equal. The Colour of the Flower is a dusky Yellow, and each Segment of the Petal has a rhomboidal Mark of a dark Red: Afterward the Tube of the Flower opens, and the deep Division of the Petals is seen, as represented at *b*; and the Three Stamina, with their Summits, appear, as at *c*; attended by the Style with its trifid Stigma, as at *e*, arising from the Germen *d*. This Plant flowers in *May* and *June*. As this Plant is the Native of a warm Country, so it requires Protection from the Frost in Winter; therefore the Bulbs should be planted in Pots filled with light Earth, and placed in the Greenhouse in Winter; or, where there is not such Conveniency, they may be put under a Hot-bed Frame in Winter; where they may have Air in mild Weather, and be screened from the Frost. In such Situations I have had them thrive and flower very well.

PLATE CXLIII.

Glaucium, *Tourn. Inst. R. H.* 254. *Tab.* 130. *Chelidonium, Lin. Gen. Plant.* 572. Horned Poppy.

THIS Genus of Plants is ranged in the Third Section of *Tournefort*'s Sixth Class, which includes the *Herbs with a Rose Flower whose Pointal turns to a Fruit, for the most part having Two Cells.* Doctor *Linnæus* joins this Genus to the *Chelidonium majus*, and places it in the First Section of his Thirteenth Class, intituled, *Polyandria Monogynia*, the Flower having many Stamina and a single Style. The Characters are exhibited in the *Gardeners Dictionary*.

The Species here represented is,

Glaucium *hirsutum flore phœnicio, Tourn. Inst.* 254. Hairy Glaucium with a Scarlet Flower. This is the *Chelidonium pedunculis unifloris, foliis sessilibus pinnatifidis, caule hispido, Lin. Sp. Plant.* 506. Celandine with One Flower on each Footstalk, many pointed winged Leaves set close to the Stalks, and a rough Stalk. *Caspar Bauhin* titles it, *Papaver corniculatum phœnicium hirsutum, Pin.* 171. Hairy Scarlet Horned Poppy.

This is an annual Plant, which grows naturally in *Spain, Italy*, and some Parts of *Germany*, from whence the Seeds have been brought to *England*. The Leaves of it are deeply jagged and hairy, of a pale Green, and grow close to the Stalks; those at the Bottom lie on the Ground, and are broader than those above. The Stalks a Foot and Half high, having a single jagged Leaf placed at each Joint; these have many Divisions from the Origin to the Point, which is extended longer than the lower Leaves. The Flowers come out from the Bosom of the Leaves, as is represented at *a*; these are composed of Five broad obtuse Petals, which are of a dark Scarlet Colour, and soon fall off. In the Center of each is situated an oblong Germen, having no Style, but supports a bifid Stigma, as is represented at *b*; this is attended by a great Number of short Stamina, terminated by obtuse Summits, as represented at *c*: The Germen afterward becomes a long taper Pod, marked *d*, on the Apex of which the bifid Stigma *e* remains, sitting on the middle Partition, which divides the Pod into Two Cells, as is shewn at *f*, which are filled with small Seeds, represented at *g*. The Flower hath an Empalement composed of Two hollow Leaves, which are closely set with short Prickles, represented at *h*; this falls away when the Flower is expanded. It flowers in *June* and *July*, and the Seeds ripen in Autumn. As the Flowers of this Plant are but of short Duration, so they do not make any considerable Figure; but the Foliage of the Plant is very elegant, and might be introduced by way of Ornament to Furniture with great Advantage, being very picturesque. It may also be wrought into Patterns for Silks, and painted upon Porcelane, where it would have a very good Effect. If the Seeds of this Plant are sown in the Autumn, they will more certainly grow than those which are sown in the Spring; which frequently in dry Seasons do not come up the same Year, or at least not before the Autumn; whereas those sown in the Autumn frequently come up soon after, or, if not at that Season, do not fail coming up in the Spring; and these Plants come early to flower, so that good Seeds may be always obtained from them. They should be sown where the Plants are to remain; and they will require no other Care but to thin them where they are too close, and keep them clean from Weeds.

PLATE CXLIV.

Heliotropium, *Tourn. Inst. R. H.* 138. *Lin. Gen. Plant.* 164. Turnsole, or Heliotrope; in *French*, *Herbe aux Verrues.*

THIS Genus of Plants is ranged in the Fourth Section of *Tournefort*'s Second Class, which includes the *Herbs with a Bell or Wheel-shaped Flower of One Leaf, whose Pointal is situated between Four Germina, which become so many Seeds inclosed in the Empalement.* *Linnæus* places it in the First Section of his Fifth Class, intituled, *Pentandria Monogynia*, the Flower having Five Stamina and One Style. The Characters of this Genus are exhibited in the *Gardeners Dictionary*.

The Species here represented is,

Heliotropium *foliis ovato-lanceolatis, spicis plurimis confertis, caule fruticoso.* Heliotrope, or Turnsole, with oval Spear-shaped Leaves, many Spikes of Flowers in Clusters, and a shrubby Stalk.

This Shrub grows naturally in *Peru*, from whence the Seeds were sent to *Paris* by the younger *De Jussieu*. The Seeds of it were sent me from the curious Garden of Duke *D'Ayen* at *St. Germain*, which have succeeded in the *Chelsea* Garden; where the Plants have flowered, and ripened their Seeds, for some Years past.

This rises with a ligneous Stalk to the Height of Three or Four Feet, dividing upward into several smaller Branches, which are garnished their whole Length with oval Spear-shaped Leaves, which come out without Order; these are about Three Inches long and One and a Half Broad in the Middle, of a light Green, soft, and covered with very small Hairs: The upper Part of the Stalks have a few smaller Leaves of the same Form, and the Branches are terminated by loose Panicles of Flowers, which are ranged in short reflexed Spikes, growing in Clusters. The Flowers are tubulous, of One Petal, which spreads open at the Top, where it is slightly indented in Five Parts: These have permanent Empalements of One Leaf, having a short Tube, represented at *a*; which is little more than a Third of the Length of the Tube of the Petal, marked *b*; in each Flower is situated Five Stamina, represented at *c*; the upper Part of the Petal spreads flat like the Wheel-shaped Flowers, as is shewn at *d*: The Flower, with its Tube taken out of the Empalement, is represented at *e*; and the short Empalement is shewn at *f*; this, opened, is represented at *g*; and *h* shews the Four Germina, which are situated round the Style, and afterward become so many Seeds, marked *i*. The Flowers are of a pale Blue, and have a musky Odour. This being a Native of a warm Country, requires Protection from the Cold of our Winters in *England*; but is so hardy as to thrive in the open Air in Summer, if placed in a sheltered Situation; and, in Winter, will live in a good Greenhouse without any artificial Heat; and as it continues flowering most Part of the Year, so it is worthy of a Place in every Garden where there is Conveniency for keeping it. This is propagated by Seeds.

PLATE CXLV.

HELLEBORINE, *Tourn. Inst. R. H.* 436. *Tab.* 249. *Limodorum, Lin. Gen. Plant.* 904. Bastard Hellebore; in *French, Elleborine.*

THIS Genus of Plants is ranged in the Third Section of *Tournefort's* Eleventh Class, which includes the Herbs with a polypetalous anomalous Flower, whose Empalement becomes the Fruit. *Linnæus* places it in the First Section of his Twentieth Class, intituled, *Gynandria Diandria.* The Flowers of this Section have only Two Stamina, which are joined to the Style. The particular Characters of this Genus are exhibited in the *Gardeners Dictionary.*

The Species here represented is,

HELLEBORINE *Americana, radice tuberosa foliis longis angustis, caule nudo, floribus ex rubro pallide purpurascentibus, Martyn. Cent. Pl.* 50. *American* Bastard Hellebore, with a tuberous Root, long narrow Leaves, a naked Stalk, and Flowers from a red to a pale purplish Colour. This is the *Helleborine purpurea, tuberosa radice, Plum. Cat.* 9. Purple Helleborine, with a tuberous Root, and the *Limodorum, Prod. Leyd.* 16.

This Plant grows naturally in *America.* I have received the Roots of this from *Pensylvania,* which were sent me by Mr. *John Bartram,* and from the *Bahama Islands*; and also from *Jamaica,* where the late Doctor *Houstoun* found it growing plentifully on the Mountains; so that it is a Native of all those Countries.

It hath a tuberous Root, which is of a yellowish Colour, covered with a rough brown Skin, and is compressed at the Top and Bottom. The Leaves come out from the upper Part of the Root, which, in large full-grown Roots, are commonly Four. These are Nine or Ten Inches long, near Three Quarters of an Inch broad in the Middle, being contracted at both Ends, and terminating in Points. They have Five longitudinal Furrows, somewhat like the young Leaves of *Palms.* These come out in the Spring, and decay in the Autumn. The Flower-Stalk arises on one Side of the Leaves, immediately from the Root; and is naked, taper, and rises a Foot and half high; the upper Part terminating with a long loose Spike of Flowers of a reddish purple Colour, composed of Six dissimilar Petals, represented at *a* and *b*: Five of which are placed orbicularly, and the lower one is hollowed like a Gutter. The Empalement afterwards becomes a Fruit, *d,* opening with Two Valves, *c* and *e*; and some few of the Fruit were lengthened in the manner as is represented at *f.* This Plant flowers in *June* and *July,* and the Seed sometimes ripen in the Autumn.

Although this Plant is found growing naturally in several Parts of *North America,* yet it will not thrive in *England,* unless it is kept in the Stove.

PLATE CXLVI.

HIERACIUM, *Tourn. Inst. R. H.* 469. *Tab.* 267. *Andryala, Lin. Gen. Plant.* 820. Hawkweed.

THIS Genus of Plants is ranged in the First Section of *Tournefort's* Thirteenth Class, which includes the Herbs with semiflosculer Flowers, whose Seeds have Down.

Linnæus places it in the First Section of his Nineteenth Class, intituled, *Syngenesia Polygamia Æqualis.* The Flowers of this Section are composed of hermaphrodite Florets, which are fruitful.

The Species here represented are,

Fig. 1. HIERACIUM *montanum tomentosum, Mor. H. R. Blæs.* Woolly Mountain Hawkweed.

The Seeds of this Plant were sent me from the Royal Garden at *Paris* by Doctor *Bernard de Jessieu,* Demonstrator of the Plants. This hath a thick fibrous Root, which sends out many broad obtuse woolly Leaves, which are irregularly indented on the Edges, as is represented at *a*: These lie near the Ground, and between them rises a branching Stalk near Two Feet high, which hath a single Leaf at each Joint, of the same Form with the lower, but are less as they advance toward the Top, as is represented at *b.* The Flowers terminate the Stalks; these are composed of several hermaphrodite Florets, as is shewn at *c*; which are included in a common scaly Empalement, represented at *d* and *e.* The Florets are tubular below, and sit upon a common downy Placenta, as is represented at *f.* Each of these have a single Seed crowned with Down.

The Plant is biennial, it flowers in *June,* and the Seeds ripen in *August.*

Fig. 2. HIERACIUM *incanum lanuginosum Ragusinum, pilosellæ flore. H. L.* 673. Hoary woolly Hawkweed of *Ragusa,* with a Flower of Mouse-ear. This is the ANDRYALA *foliis dentato-hastatis, Lin. Sp. Plant.* 808. Andryala with Spear-shaped indented Leaves.

This Plant hath a perennial Root, which will creep under the Surface of the Ground, and multiply. The

lower Leaves are about Four Inches long, and little more than half an Inch broad, very hoary, and indented or sinuated on their Edges, ending in acute Points. From the Root come out several weak Stalks, which rise about Nine Inches high, dividing toward the Top into Two or Three smaller Branches; these are garnished with small Leaves at each Joint, which are almost intire. The Stalks are terminated by yellow Flowers composed of several Florets, which are hermaphrodite, their lower Part being tubular and cylindrical, but the upper Part is plain, spread open, and is cut into Three Parts. There are several of these Florets included in one common scaly Empalement, and each of them is succeeded by a single Seed crowned with Down.

Every Part of this Plant is very hoary, so it makes a pretty Variety when intermixed with Plants whose Leaves are green: It flowers in *June* and *July*; but unless the Autumn is warm and dry, the Seed will not ripen in this Country; nor will the Plant live abroad in the Winter, unless they are planted in a dry Soil, and a warm Situation.

The Seeds of this Plant were sent me by *Robert More*, Esq; from *Spain*, where he found the Plant growing naturally: And since I have received some of the Seeds from the *Cape of Good Hope*, where I am assured it grows wild; and I also have received it from *Algiers*; so that it is found in several Countries.

PLATE CXLVII.

HIERACIUM *medio nigrum Bæticum majus, Par. Bat.* 185. Greater Hawkweed of *Bætia*, with a black Middle to the Flower.

THIS Plant grows naturally in several Parts of *Spain*, from whence the Seeds have been brought to most of the curious Gardens in *Holland* and *England*; but of late Years it has been generally propagated in most of the Pleasure Gardens near *London*. This is an annual Plant, which perishes in the Autumn, soon after the Seeds are ripe; which if permitted to scatter, the Plants will come up without farther Care.

The lower Leaves of this Plant are near Six Inches long, and are regularly sinuated on their Edges, as [illegible]; these are of a pale Green, and [illegible] the Ground. Between the Leaves come out One or [illegible] branching Stalks, which rise upward of Two [illegible]; and at each Joint are garnished with a single Leaf, which is intire and obtuse. The Stalks are terminated by yellow Flowers, with a black Middle; these are composed of many hermaphrodite Florets, which are included in a bristly scaly Empalement, surrounded by an Involucrum; which is longer than the Rays of the Flower.

There are Two or Three Varieties of this Plant, differing in the Colour of their Flowers; one is yellow, with a black Bottom; the other is of a Sulphur-Colour, with a black Bottom; and the Third is white, with the same Bottom or Middle. But these are generally supposed to be seminal Variations.

Doctor *Linnæus* hath not enumerated this Plant in his *Species Plantarum*; which may be accounted for, by his supposing it to be the same as the *Hieracium calyce barbato* of *Fabius Columna*; which he has ranged under his Genus of *Crepis*. But these are Two very different Plants, which never vary from Seeds.

PLATE CXLVIII.

HYACINTHUS, *Tourn. Inst. R. H.* 344. *Tab.* 180. *Lin. Gen. Plant.* 385. Hyacinth; in *French*, *Jacinte*.

THIS Genus of Plants is ranged in the First Section of *Linnæus*'s Sixth Class, intituled, *Hexandria Monogynia*; the Flower having Six Stamina, and One Style.

Tournefort places it in the First Section of his Ninth Class, which includes the Herbs with a Lilly Flower of One Petal, cut into Six Parts, whose Pointal becomes the Fruit. *Linnæus* joins to this Genus the *Muscari* of *Tournefort*; and has greatly retrenched the Number of Species, in which he has proceeded too far: For, altho' *Tournefort* and *Boerhaave* have enumerated too great Variety of these Flowers, yet there are several distinct Species among those, which never alter from one to the other; therefore should not have been omitted in the List of *Linnæus*'s Species.

The Plant here represented is a Variety, which by Culture has been raised to the Perfection in which it appears, from the Seeds of one of the Eastern Kind with single Flowers; and by the Multiplicity of its Petals, all the Organs of Generation are lost, so that it can convey no Idea of the Characters belonging to the Genus. But as many of our Purchasers have requested we would exhibit the Figures of some of the most beautiful Flowers in the Course of our Work, we have chosen this, as being one of the finest Flowers of this Kind we have

yet



HELLEBORINE, *Americana radice tuberosa, foliis longis angustis caule nudo floribus ex rubro pallide purpurascentibus Mart Cent. 50.*

Bastard Hellebore



Fig. 1. HIERACIUM, montanum tomentosum H. R. Bles.
Fig. 2. HIERACIUM, incanum lanuginosum Ragusinum, pilosellæ flore H. L. 673.

R. Lancake delin. J. Miller Sculp.

Published according to Act of Parliament by P. Miller March 31 1757.

Hawkweed



HIERACIUM medio nigrum Boeticum majus Par. Bat. 185.

R. Lancake delin. T. Miller Sculp.

Publishd according to Act of Parliament by P. Miller March 31, 1757.

Greater Hawkweed



HYACINTHUS, *Orientalis, flore pleniſsimo albo, intus eleganter roseo & purpureo variegato.*

R. Lancake delin. J. Miller sculp.

Publish'd according to Act of Parliament by P. Miller, March 31. 1757

Hyacinth



HYOSCYAMUS, *major albo floribus umbilico floris virenti Jussieu*

R. Lanicke delin. — T. Miller sculp.

Published according to Act of Parliament by P. Miller March 31 1757.

Henbane



Fig. 1. HYPECOON, latiore folio Tourn. Inst. R. H. 230
Fig. 2. HYPECOON, tenuiore folio Tourn. Inst. R. H. 231

R. Lancake delin. J. Miller Sculp.

Publish'd according to Act of Parliament by P. Miller March 31: 1757

Hypecoum

yet seen; but the Title which it bears a[...] we do not know, nor is it very material. [...] of these Flowers have several Denominatio[...] Countries, so we have given it the followi[...]

HYACINTHUS *Orientalis, flore plenissimo alb[...] ter roseo & purpureo variegato.* Eastern, with a very double white Flower, whose[...] gantly variegated with a Rose and purp[...]

The Root of this Flower is tuberous, [...] vered with a purple Skin; the Leaves are [...] long, an Inch broad, and very succulent [...] rises about Fourteen Inches high, is very [...] tom, lessening all the Way to the Top. It is [...] lent, and of a deep Green. The Flowers come out on every Side the Stalk, rising above each other in Form of a Pyramid, each standing on a [...] distinct Foot-stalk; these are naked, having no [...]palement; but the Petals are closed at the Bottom, [...] sort of Tube, but spread open at the Top, where they are as large and double as small Roses: The Ground of the Flower [...] white; but on the Inside it is curiously variegated with Rose-colour and Purple: So that a more beautiful Flower can scarce be seen than this. It flowers in *April*; and if it is screened from the Sun in the Heat of the Day, and also from Rain and Frost, if any should happen at the Time of its flowering, it may be preserved in Beauty near a Month.

PLATE CXLIX.

HYOSCYAMUS, *Lin. Gen. Plant.* 219. *Tour. R. H.* 117. *Tab.* 42. Henbane; in *French*, [...]e.

THIS Genus of Plants is ranged in the Section of *Linnæus*'s Fifth Class, intitled *Pentandria Monogynia*, the Flower having Five S[...] and One Style. *Tournefort* places it in the First [...] of his Second Class, which includes the Herbs [...] nel-shaped Flower of One Leaf, whose [...] the Fruit.

The Species here represented is;

HYOSCYAMUS *major albo similis, umbilico [...]enti, Jussieu.* Greater Henbane, like the whit[...] a green Bottom to the Flower.

The Seeds of this Plant were sent by Do[...] to the *Chelsea* Garden; but no mention of Country where it grows naturally, came with it. [...] generally taken for the true *White Henbane* of [...]tients, the Seeds being whiter than those of any o[...]pecies, and the Plant agrees to the descriptive Ti[...]ven by Doctor *Linnæus* to the *White Henbane* of [...]aubin; which is, *Hyoscyamus foliis petiolatis, floribus s[...]s, Hort. Cliff.* 56. Henbane with Leaves having [...]otstalks, and Flowers sitting close to the Branches. [...] there is another Species which approaches near t[...], whose Flowers have a black Bottom, and may [...]robably been confounded with this, by supposing [...] to be the same Species. But I have cultivated both[...] Thirty Years, and have never observed either [...]ry: For they do not only differ in the Colour of [...] Flowers, but their Leaves are very different, and [...] Plants are also different in their Growth. This is an[...]nual Plant, which perishes soon after the Seeds are ri[...] whereas the other Sort will frequently live Two Years. The lower Leaves of this are shorter and rounder, and have but few Indentures, which are very obtuse; they are covered with short soft Hairs; the Stalk rises near Two Feet high, sending out a few Side-branches, which are also hairy, and are garnished with oblong Leaves, having several obtuse Indentures on their Sides, and stand upon short Footstalks: These are very soft, thick, and succulent. The Flowers are produced at the End of the Stalk and Branches, sitting very close in Clusters, without any Footstalk. These have but One Petal, whose Bottom is tubulous, but is cut into Five Parts, [...] is represented at *a*; the upper Segment being larger than the others, they are all obtuse. The Empalement of the Flower *c* is Funnel-shaped, and is cut at the Top into Five acute Segments. In the Centre is situated the Germen, supporting a slender Style, crowned by a round Stigma, as is represented at *d*. The Germen afterward becomes a Fruit, as is shewn at *b*, inclosed in the Empalement, and is shaped like a Pot, with a Lid or Cover represented at *e*; having Two Cells, as is shewn at *f*, divided by a longitudinal Partition, represented at *g*. These are filled with small roundish Seeds adhering to the Placenta. The Roots, and every Part of our common *Black Henbane*, are supposed to have a poisonous Quality; the bad Effects of the Roots have been already mentioned under the Article *Gentiana*; and an Account of some Children which were poisoned by eating of the Seeds a few Years since, is published in the *Gardeners Dictionary*. But we have no Account of any noxious Quality in this *White Henbane*, nor has it so offensive a Scent as the black; so that when the Seeds are ordered for medicinal Use, it should be those of the white, and not the black: But as the white is not a Native of this Country, the Seeds of the black are more commonly used.

PLATE CL.

Hypecoum, Tourn. Inst. R. H. 230. Tab. 115. *Hypecoum*, Lin. Gen. Plant. 157.

THIS Genus of Plants is ranged in the Fifth Section of *Tournefort's* Fifth Class, which includes the Herbs with a Cross-shaped Flower, whose Pointal becomes a jointed Pod. Doctor *Linnæus* places it in the Second Section of his Fourth Class, intituled, *Tetrandria Digynia*; the Flower having Four Stamina, and Two Styles.

The Species here represented are,

Fig. 1. HYPECOON *latiore folio*, Tourn. Inst. R. H. 230. Hypecoon with a broader Leaf. This is the *Hypecoum siliquis arcuatis compressis articulatis*, Hort. Upsal. 31. Hypecoum with arched compressed Pods, which are jointed. *John Bauhin* titles it *Hypecoum siliquosum*, Hist. 2. 899. Podded Hypecoum.

This is an annual Plant, which grows naturally in the Islands of the *Archipelago*, and also in the South of *France* and *Spain*: It sends down a long taper Root into the Ground, which hath many Fibres coming out the whole Length. The Leaves near the Root are broad, jagged, and spread on the Ground; between these arise [illegible], which are near a Foot long, branching toward the [illegible], and garnished with fine cut Leaves at the Joints. The whole Plant is of a greyish Colour, and abounds with a yellow Juice like *Celandine*; the Flowers are pro[illegible] End of the Branches; these are yellow, [illegible] of Four jagged Petals, which are divided [illegible] Parts, as is represented at *a*, [illegible] *c*, and *d*, [illegible] Size and Shape; these sit in the Empalement, of whose Centre arises the double Style [illegible] which [illegible] become a jointed bending Pod, as is shewn [illegible] One of which Joints is represented at *b*, which [illegible] longitudinally at *i*, to shew the Seed lodged [illegible] which is Kidney-shaped, and represented a[illegible]

This flowers in *June*, and the Seeds ripen in *August*. Seeds of this Plant are not sown in the Autumn will not grow the First Year.

Fig. 2. [illegible]OON *tenuiore folio*, Inst. R. H. 231. Narrow-[illegible] Hypecoon. This is the *Hypecoum siliquis cernuis* [illegible] *cylindricis* Hort. Upsal. 31. Hypecoum with cylindrical Pods, which hang downward. It is [illegible]ed by *Lobel*, *Cuminum sylvestre siliquosum*. Wild [illegible] Cumin.

This [illegible]h very slender Stalks, which bend to the Ground, are garnished with very narrow fine Leaves of [illegible] Colour, like the former; the Flowers are very [illegible] a pale Yellow, composed of Four Petals, which [illegible] indented. When the Flower decays, the Style [illegible] to a taper cylindrical Pod, not jointed as the form[illegible] This grows naturally in the same Countries as [illegible]ner, and flowers at the same time.

PLATE